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WORLD NEWS

Turkey launches war of words over European Union

Turkey made an unprecedented attack on the European Union, saying its relations with Ankara were in "a sick period" and the Turkish public had lost all interest in joining the EU. **Europe, Page 2; Editorial Comment, Page 15**

China tests foreign fund managers
China is considering handing over management of part of its $146.5bn foreign exchange reserves to international banks and fund managers. Trial sums have already been allocated to test the rates of return. **Page 16**

Indo-Pakistan link faces test
South Asia's foreign ministers begin a two-day regional summit in Sri Lanka today, which will be closely watched for signs of tangible progress in relations between nuclear rivals India and Pakistan. **Asia, Page 7**

US poised to agree steel quotas
The US House of Representatives was last night poised to pass legislation that would set quotas for foreign companies selling steel to the US. **World trade, Page 4**

N Korea deal eases missile fears
The agreement by North Korea to allow the US to inspect a suspected nuclear weapons site has eased fears, but Washington must still deal with the North's development of long-range missiles. **Asia, Page 7; Editorial comment, Page 15**

Israeli religious leader convicted
Aryeh Deri, leader of Israel's powerful ultra-Orthodox Shas party, was convicted of fraud, breach of trust and bribe-taking. **International, Page 6**

ECB warning on deficits
The European Central Bank warned European governments they could be at risk of being fined for running excessive budget deficits. **Europe, Page 3**

Pinochet set to learn his fate
General Augusto Pinochet, former Chilean dictator, will learn next week whether he has been granted immunity from prosecution for alleged crimes against humanity. **International, Page 6**

Bhutto awaits court verdict
A Pakistani anti-corruption court abruptly closed the hearing in a case against Benazir Bhutto, the former prime minister, and said a verdict could be announced on Monday. **Asia, Page 7**

Egypt weighs exchange rate policy
Egypt may adopt a more flexible approach towards exchange rate policy and foreign currency reserves. **International, Page 6**

$4bn plan to help Brazil companies
The World Bank's private-sector arm plans to create a fund to raise up to $4bn to provide finance for Brazilian companies facing heavy foreign debt repayments. **International, Page 6**

BUSINESS NEWS

Olivetti plans 13,000 job cuts at Telecom Italia in bid strategy

Olivetti chief executive Roberto Colaninno intends to cut 13,000 jobs at Telecom Italia and shed the group's Latin American assets as part of a strategy to back his company's hostile bid for its larger Italian rival. **Companies and Markets, Page 17; Let battle commence, Page 14**

Volvo of Sweden defended its decision to sell its car division to Ford for SKr50bn ($6bn) and vowed to use the proceeds in a capital investment and acquisitions programme. **Companies and Markets, Page 17; Interview, Page 20**

KPN, the Netherlands' dominant telecoms operator, is to enter the UK market by next year in a direct challenge to BT. **European companies, Page 20**

Donaldson, Lufkin & Jenrette, the US investment bank, announced plans to issue a new class of shares to track the performance of DLJdirect, its internet brokerage. **Companies and Markets, Page 17; Lex, Page 16**

Intel, the world's largest chipmaker, agreed to stop discriminating against its customers in legal disputes over new technology, as part of its antitrust settlement. **US news, Page 8**

OTE of Greece and KPN of the Netherlands are expected to make a joint offer today for a majority stake in BTC, the Bulgarian telecoms utility in the flagship privatisation deal. **Companies and Markets, Page 17**

Deutsche Bank is set to ignore European law when it cuts thousands of jobs following its $10.1bn takeover of Bankers Trust, the US investment bank. **US companies, Page 18**

Banque Nationale de Paris, Société Générale and Paribas were warned by France's stock market regulator about the publication of sensitive information during their takeover battle. **European companies, Page 20**

Global Crossing, an upstart international carrier, and Frontier, a US local and long-distance company, announced an $11.2bn merger. **US companies, Page 18**

Dai-Ichi Mutual will defy Japanese life insurance industry convention by breaking ranks and raising the premium on its insurance policies written after April 2. **Asia-Pacific Companies, Page 22**

Skoda Auto, Czech subsidiary of Volkswagen, increased its net profit by 92 per cent last year. **European companies, Page 20**

World Equity Markets
The latest trends and data from more than 50 national markets at a glance
Page 37

Brussels and Bonn seek speedy end to EU crisis

By Haig Simonian in Bonn, Peter Norman in Brussels, Robert Graham in Paris and James Blitz in Rome

The German government and the European Commission yesterday pressed for a speedy resolution to the crisis in Brussels after this week's surprise resignation of the 20-member commission.

New commissioners could be appointed at a scheduled summit of European Union heads of state and government next Wednesday in Berlin, but a German government official said it was conceivable there would have to be another summit.

Massimo D'Alema, Italy's prime minister, yesterday held an intense round of talks with other EU leaders to build support for his predecessor, Romano Prodi, as the next president of the European Commission. Other names being mooted to take over from Jacques Santer include Javier Solana, the Spanish Nato secretary-general, and António Guterres, the Portuguese prime minister.

The commission added to the pressure for rapid change by deciding to deal only with "current and urgent business" and take no fresh political initiatives.

After its first meeting in a caretaker capacity, it urged member states' governments "to appoint a new commission without delay". The executive body declared: "We have resigned and have no desire or intention of remaining in office a moment longer than we have to."

Germany, holder of the revolving EU presidency, has taken a leading role in resolving the crisis caused by criticism of the commission in an independent report of five experts published on Monday. Chancellor Gerhard Schröder, touring EU capitals to build consensus on reform plans for the EU's finances, regional and farm policies ahead of the Berlin meeting, has also been canvassing EU leaders on ways of resolving the impasse.

Yesterday's statement by the commission was seen as an attempt to counter charges that it was clinging on to power and pursuing a "business as usual" approach. It was notably more contrite in tone than the blustering performance of Mr Santer at a post-resignation press conference on Tuesday.

The commission pointed out that the EU treaty required it to remain in office until replaced. Although its powers are not limited in present circumstances, it decided to exercise them "in a restrictive manner". It will deal with current and urgent business and comply with its institutional and legal obligations.

France cautioned its EU partners against a rushed decision on the future of the commission and its presidency. Paris would like to see commission appointments postponed until after the elections to the European parliament in June. It believes the complex and extensive negotiations on the future of the EU budget – the so-called Agenda 2000 – stands a better chance of success under the German presidency which ends in June.

Mr Santer, sharply criticised in the European press after declaring that he was than "whiter than white", appeared to have extinguished any lingering chance of being reappointed to lead an interim commission to the end of this year. "One can rule that out," said Mr Schröder in Vienna.

Reports and analysis, Page 2
Jobs at stake, Page 14
Editorial Comment, Page 15

International Olympic Committee president Juan Antonio Samaranch on the big screen in Lausanne yesterday. He won a vote of confidence in his leadership but six members were expelled from the IOC. Report, Page 16 Reuters

Worst of the recession is over says Japanese PM

By Michiyo Nakamoto in Tokyo

Japan's prime minister yesterday gave a strong indication that his government believes the economy is over the worst of its most severe post-war recession.

Speaking after the Diet had passed a budget for 1999 of Y81,900bn ($694bn) at record speed, Keizo Obuchi said the economy was bottoming out of its downward trend. The government would do its best to ensure economic recovery with modest additional measures.

"The economy has stopped worsening recently and I am convinced that it will turn around and head for the better," the prime minister added.

Mr Obuchi indicated that measures were being taken to ensure recovery as soon as possible and reiterated the government's recent more upbeat comments on the outlook for the economy. "I understand that people and corporations are becoming more optimistic," Mr Obuchi said.

Kiichi Miyazawa, finance minister, also provided cheer by indicating that the Trust Fund Bureau would continue to buy Japanese government bonds, or JGBs, in April. Mr Miyazawa's comments eased the pressure on bond yields.

The budget covers the year to March 2000, during which the Japanese government is looking for 0.5 per cent growth in the economy. It includes nearly Y20,000bn in combined tax cuts and public works spending.

The prime minister said public works spending would be concentrated in the first half of the year and that an expected increase in unusually low interest rates on housing loans would be kept to a minimum. Public funds to be made available to corporations suffering a severe credit crunch will also be increased from Y20,000bn, Mr Obuchi said.

To finance its spending, the Japanese government will issue a record Y31,100bn in bonds next year, bringing the general government deficit to 9.2 per cent of gross domestic product. Investors had been concerned about the Japanese government's ability to fund its increase in public spending after the Trust Fund Bureau indicated it would stop buying JGBs.

The opposition rejected the budget, which it said would lead to spending on "wasteful" public works projects and discriminated against lower-income households.

A rising stock market and stability in the bond market have contributed to a sense that the worst of Japan's financial woes are past. The benchmark Nikkei average continued its rise yesterday, gaining 195.29 points to close at 16,268.11 in active trading.

However, there is strong underlying concern about the future outlook as restructuring in the corporate sector raises the spectre of higher unemployment.

Although yesterday's budget includes more than Y9,000bn in tax cuts, the termination of last year's special tax cut means that in effect, those earning less than Y8m face a rise in taxes.

A second lease of life, Page 15
Lex, Page 16; Bonds, Page 26; World stocks, Page 38

DaimlerChrysler to produce car run on fuel-cells

By John Griffiths in Washington

DaimlerChrysler yesterday unveiled what it claimed to be the first "zero emissions" fuel-cell powered car suitable for production.

It uses hydrogen to generate electricity to drive the vehicle, and produces mainly water vapour for its exhaust.

The company said it was committing $1.4bn to bring the vehicles – versions of the Mercedes-Benz A-Class – into limited production in 2004.

The "Necar (new electric car) 4" is claimed to be capable of reaching 90mph and travelling nearly 280 miles before refuelling, thus overcoming the problems of restricted performance and range that have bedevilled the industry's attempts to develop viable battery-powered cars.

"Fuel cells have the potential to be the most attractive alternative propulsion system for the long term," said Jürgen Schrempp, DaimlerChrysler co-chairman. "And now we have solved the most challenging technical problems."

A few years ago, the power plant would have taken up the entire inside space of a large van. The fuel cell in the A-class was designed with Ballard Power Systems of Vancouver, whose shares rose nearly 26 per cent to C$56, up C$11.55, by lunchtime in Toronto yesterday. It takes up a space equivalent to that of the petrol tank, although for production vehicles there are a few more components to be fitted in.

Ferdinand Panik, head of the project, said: "We have proved that people can have a stylish, good-performing vehicle that still seats five passengers."

The model unveiled in Washington yesterday uses liquid hydrogen, but difficulties in storing and distributing hydrogen in liquid form mean that versions using methanol – from which the fuel cell extracts hydrogen – are expected to be the choice for initial production from 2004.

Some industry estimates suggest that more than 30m fuel-celled vehicles could be on the roads by 2020. Robert Eaton, DaimlerChrysler co-chairman, refused to give any estimates. "We really don't know. I've been involved in advanced vehicle projects before and where volumes estimates are given they usually turn out to be wrong."

DaimlerChrysler acknowledges a big need to drive down the cost of the vehicles. At the present state of the project a production fuel-celled A-class would cost many times the price of its petrol or diesel equivalent. The first vehicles in production in 2004 will not be competitive for private buyers but the gap will not be large, according to Mr Eaton.

WORLD MARKETS

STOCK MARKET INDICES		
New York: lunchtime		
Dow Jones Ind Av	9,882.45	(-48.01)
NASDAQ Composite	2,428.58	(-12.69)
Europe and Far East		
CAC40	4,170.01	(-18.34)
DAX	5,077.43	(-17.20)
FTSE 100	6,140.6	(-61.3)
FTSE Eurotop 300	1,245.85	(-9.40)
Nikkei	16,268.11	(+195.29)
US LUNCHTIME RATES		
Federal Funds	4.75%	
3-mth Treas Bills: Yld	4.53%	
Long Bond	96$\frac{5}{32}$	
Yield	5.51%	
OTHER RATES		
UK: 3-mo Interbank	5$\frac{5}{16}$%	(same)
UK: 10 yr Gilt	111.22	(111.28)
Euro Euribor	3.036%	(same)
Germany: 10 yr Bund	98.48	(98.52)
Japan: 10 yr JGB	100.814	(100.904)
NORTH SEA OIL (Argus)		
Brent Dated	$12.99	(12.47)

GOLD		
New York: Comex		
(Mar)	$283.5	(283.2)
London:		
	$284.25	(282.75
DOLLAR		
New York: lunchtime		
£	1.6307	
€	0.9078	
SFr	1.4495	
Y	117.965	
London:		
£	1.6298	(1.6243)
€	0.9084	(0.9167)
SFr	1.4514	(1.4662)
Y	118.42	(117.87)
Tokyo close:		Y 118.66
EURO (London)		
$	1.1009	(1.0909)
£	0.6755	(0.6715)
Y	130.357	(128.579)
SFr	1.5977	(1.5994)

London · Leeds · Paris · Frankfurt · Stockholm · Milan · Madrid · New York
Chicago · Los Angeles · Tokyo · Hong Kong

Euro-zone target price €2.15. Prices in local currency as shown

Bahrain	Din1.300	Iceland	IKr265	Oman	OR1.75
Belgium	BFr90 (€2.23)	Italy	L3900 (€2.01)	Poland	Zl 10.00
CIS	US$4.00	Jordan	JD1.75	Portugal	Esc320 (€1.60)
Croatia	Kn19.00	Kuwait	KWD0.750	Qatar	QR13.00
Denmark	Dkr16.00	Latvia	Ls1.65	South Africa	R16
Estonia	EKr34.00	Lithuania	Lit21.00	Spain	Pta325 (€1.95)
Finland	Fmk13.00 (€2.19)	Lebanon	LBP3.500	Sweden	SKr20.00
France	FFr14.00 (€2.13)	Luxembourg	LFr90 (€2.23)	Switzerland	SFr3.50
Gibraltar	£0.85	Morocco	Dh18.00	Syria	S£80.00
Greece	Dr500	Netherlands	Fl 4.80 (€2.18)	Tunisia	Din2.000
Hungary	Ft380	Norway	NKr19.00	UAE	Dh13.00

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EUROPEAN COMMISSION PRESIDENT D'ALEMA BEGINS BUILDING SUPPORT FOR HIS PREDECESSOR TO REPLACE JACQUES SANTER

Italian PM seeks backing for Prodi

By James Blitz in Rome

Massimo D'Alema, Italy's prime minister, yesterday held an intense round of talks with his principal European Union counterparts to build support for his predecessor, Romano Prodi, as the next president of the European Commission.

Following the resignation of the 20 European commissioners earlier this week, Mr D'Alema spoke to French, German and British leaders in an attempt to get backing for the 59-year-old Mr Prodi as a permanent replacement for Jacques Santer, the outgoing Commission president.

In a statement, Mr D'Alema called for a "swift solution" to the crisis in Brussels.

Senior aides to the prime minister said they were optimistic European Union heads of government could appoint a permanent replacement for Mr Santer within weeks.

They argued this would favour the candidacy of Mr Prodi, who is immediately available for the post, holding no public office at present, unlike his main rival, Nato secretary-general Javier Solana.

As a Christian Democrat who has headed a centre left alliance, Mr Prodi also has the advantage of cross-party appeal – important given that the European Parliament would have to ratify any nomination.

Mr Prodi's candidacy has been warmly received by Tony Blair, the UK prime minister. Gerhard Schröder, Germany's chancellor, said yesterday he would "not take part in any speculation about excellent individuals – and Romano Prodi is one".

French officials said privately yesterday Mr Prodi would be an acceptable choice for them. While they expressed admiration for Mr Solana, they were reluctant to set a precedent by moving a head of Nato, a military alliance, to head the European Commission.

Mr Prodi's advisers emphasised that the former premier would refuse to be considered as a stop-gap president of the Commission.

Mr D'Alema is campaigning for his predecessor to get the Brussels job, amid a strong consensus in Europe that the post must go to a figure from a southern EU state who is politically centre-left. The prime minister's campaign, however, is mainly motivated by domestic political factors.

Mr D'Alema fears Mr Prodi would challenge his leadership of the centre-left if he were to stay on the domestic political scene.

Mr Prodi recently set up a centre-left party, called the Democrats. The new party has the backing of 100 town mayors and of Antonio Di Pietro, the former Milan magistrate who played a significant role in bringing down the old Christian Democrat regime. Political commentators think the Democrats could poll between 10 and 12 per cent of the vote at the European elections.

A performance on this scale would give it more than half the votes currently enjoyed by Mr D'Alema's party, the Democrats of the Left.

Some commentators entertained the possibility that such a result might force Mr D'Alema's government into a summer political crisis.

Mr Prodi, whose 28 month government collapsed last autumn, has been tight-lipped about his candidacy for Brussels and has virtually ruled himself out of the running on several occasions, saying he wants to concentrate on his domestic ambitions.

However, his aides admit he has been tempted by the Brussels job and would have to accept if offered.

Editorial comment, Page 15

Brussels backs EU plan on fraud prevention

By Peter Norman in Brussels

The European Commission, acting in its caretaker capacity following this week's mass resignation, yesterday fell in line with the wishes of European Union member states and revised its plans for a tougher independent office to investigate fraud in the EU.

It accepted that the office should be established within the Commission rather than as a separate entity, after member states argued an outside office would entail the creation of a new bureaucracy. They also said it would take time to become operational and would not be privy to gossip or indications of malpractice inside the EU's executive body and other institutions.

Yesterday's decision has brought the Commission into line with the EU economics and finance ministers, who on Monday called for the creation of the fraud prevention office. It will enter force on June 1.

The office will be independent of the Commission and will replace Uclaf, the Commission's present anti-fraud unit. It will be able to carry out external investigations in the EU member states and internal investigations in all EU institutions, where it will have the right to immediate and unannounced access to buildings.

The new office's director will be appointed by the Commission after consultations involving the member states and the European Parliament for a five-year term. He or she will not seek or take instructions from the Commission, national governments or any other institution or body.

The new structure represents a victory for Gordon Brown, the UK chancellor, who had called for a top independent fraud investigator inside the Commission with statutory protection from dismissal.

At their meeting on Monday, the economics and finance ministers said any EU staff member with factual information pointing to possible fraud should be required to report it directly to the fraud office.

The "ecofin" council also said there should be a requirement imposing penalties on any staff member harming the financial interests of the EU.

THE CARETAKERS AT LEAST SEVEN ARE LIKELY TO SEEK MEMBERSHIP OF THE NEXT FIVE-YEAR COMMISSION

Who will go and who will stay?

By Michael Smith in Brussels

For the moment they are the caretaker Commission, with perhaps just weeks left in office.

But the signs yesterday were that most of the 20-strong European Union executive who resigned on Tuesday are hoping to stay on at least until January, when their term of office was in any case due to expire.

At least seven, including France's Yves-Thibault de Silguy and Austria's Franz Fischler, are likely contenders to return for the Commission that will take office for five years from next January.

They are therefore likely to seek membership of an "interim Commission", which could soon be appointed to run the executive until January.

Even commissioners who have declared their intention of leaving office in January want to be part of an interim commission.

These include Belgium's Karel Van Miert and the UK's Sir Leon Brittan, both of whom have the support of their governments for staying on. The Liberal faction in parliament yesterday indicated it may endorse Sir Leon as interim president.

No commissioner has yet ruled him or herself out to be part of the interim commission. "Most will try to stay," said one diplomat.

"They have been shamed but their embarrassment will be reduced if they are accepted for another term, even if it is only temporary".

Some will be disappointed. First they have to win the nomination of their governments. Then they must face the European Parliament, which ordered the report into maladministration which brought the Commission down.

While most MEPs are likely to allow some commissioners back into office, they would block a wholesale return of all.

Gerhard Schröder, chancellor of Germany, holder of the EU's rotating presidency, yesterday ruled out the reappointment of Jacques Santer, president.

Edith Cresson, the French commissioner accused of favouritism in the independent experts' report which led to the resignations, also seems a non-starter.

However, other commissioners criticised in the report are more realistic contenders.

Monika Wulf-Mathies, regional aid commissioner rebuked over a staff appointment, has signalled a desire to be re-appointed both for the interim Commission and the one that takes office next January.

Commissioners who already had been expected to depart next January are Hans van den Broek of the Netherlands, Anita Gradin of Sweden, Martin Bangemann of Germany, Manuel Marin of Spain, Christos Papoutsis of Greece and Joao de Deus Pinheiro of Portugal, as well as Sir Leon and Mr Van Miert.

Those likely to seek further terms of office, both for the rest of this year and beyond, include Britain's Neil Kinnock, Denmark's Ritt Bjerregaard, Finland's Erkki Liikanen and Spain's Marcelino Oreja, as well as Mr de Silguy, Mr Fischler and Mrs Wulf-Mathies.

Italy's commissioners – Mario Monti and Emma Bonino – may also want to stay, though under the national quota system one would have to make way for Romano Prodi, former Italian prime minister, if he should be appointed Commission president.

Ireland's Padraig Flynn also harbours ambitions for re-appointment in January.

'Pass the buck system on grand scale'

Experts' report highlighted executive body's poor communication, rigid staff structures and lack of accountability

By Emma Tucker in Brussels

The report of five independent experts into fraud and nepotism at the European Commission published earlier this week gave outsiders a tantalising peek at the executive body's management structures. The full picture may be yet more worrying, if less sensational.

Weighed down by poor communication, rigid personnel structures, lack of accountability and beset by political influences, only a masochistic management guru would relish the challenge of straightening out the problems of the Commission. As one young official put it: "The system encourages buck-passing on a gargantuan scale."

The nearly 16,000-person Commission is unlike any other body. Both an executive and a civil service, its highly educated staff members come from 15 different legal and political traditions that do not always gel. They arrive with high ideals and buckets of enthusiasm, but often end up frustrated. They are trapped by some of the best public sector salaries and conditions in the world, yet bored by jobs that do not tax them.

One critical problem is that there are too many commissioners – two for the big countries, one for the little ones and not enough serious jobs to go round. National pride dictates that each has to be assigned a policy area and a bevy of *fonctionnaires* to go with it.

The result is that important directorates such as the competition department, which administers the European Union's anti-trust and state aid policies, struggle with a tremendous work load on stretched resources, while less critical departments churn out tedious reports, surveys and "communications".

The logical response would be to transfer officials from these areas – the audio-visual directorate perhaps, or the directorate for "enterprise policy, distributive trades, tourism and cooperatives". But this seemingly straightforward mechanism is forever thwarted by the pride not just of commissioners, but also of their member states who rate the size of "their" directorates, however feeble their remit.

This fault was picked up by the report. It said the cases of fraud and mismanagement it examined could be traced back to a mismatch between the objectives assigned to the Commission and the resources it was able, or had chosen to employ.

As for the ranks themselves, many complain that the Commission is not a meritocracy. Up to a certain level good work and motivation will get a *fonctionnaire* promoted even if, as one official said, "too much emphasis is placed on time serving rather than ability".

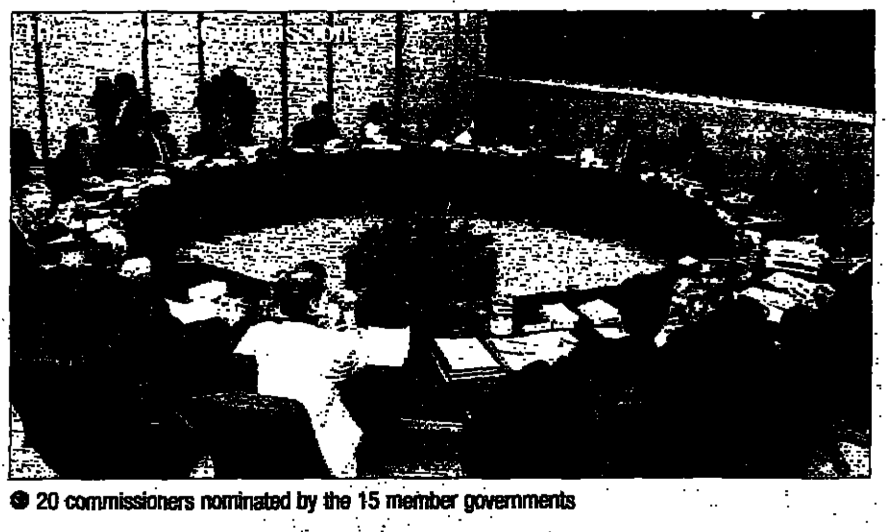
However, senior Commission jobs are "flagged", or allocated according to nationality. The result is that commissioners' private offices – the politically appointed "cabinets" – or national governments do their utmost to determine how a post is filled, rather than allow a proper analysis of the candidates available.

The cabinet structure itself – following the French model has also come under fire. Two problems stand out: a lack of communication between the cabinets and the services (commissioners and their cabinets do not even work in the same buildings as their directorates) and the practice by commissioners of "parachuting" cabinet members into senior Commission posts as a favour.

Poor communication between cabinets and the ranks was denounced last year by Stefano Micossi, former director general of the industry directorate. He quit his post complaining of the power wielded by the cabinets saying they exposed the Commission to "potential political interference unparalleled in member states".

Adding to the general chaos is the weakness at the centre of the Commission. The president is merely first among equals, and does not have the power to fire incompetent colleagues. This lack of strength has also allowed the Commission's staff organisations to become powerful. A strike last April over reforms presented by Erkki Liikanen, responsible for personnel policy, terrified the upper echelons of the Commission into slowing down the reforms. The report also exposed disciplinary procedures as too lengthy and bureaucratic.

For some of the Commission's younger officials, this week's report was long overdue. "Now what we need is proper meritocratic promotion, external panels for appointments, real disciplinary procedures, a beefed up fraud unit and a refusal by the Commission to take on tasks for which it does not have the resources," said one *fonctionnaire*.



● 20 commissioners nominated by the 15 member governments

● Cabinets: each commissioner is supported by a team of personal policy advisers headed by a *chef de cabinet*
Total staff: 110

● 25 directorates general plus 15 specialised services (such as statistics, legal and translation services and publications). Headed by director general, equivalent in rank to top civil servant in a national government ministry
Total staff: 15,722, less than employees of an average size European city

● Running costs amount to 3.3% of total EU budget of €83.5bn in 1998

Supermarkets in move on modified food

By John Wilkman, Consumer Industries Editor

Seven European supermarket chains have formed a consortium to eliminate genetically modified crops and derivatives from their own-label food products.

The initiative has been led by J. Sainsbury, the UK's second largest supermarket group, which has also signed up industry experts to help establish guaranteed sources of GM-free ingredients.

Public concern over the environmental and health impact of GM crops has been growing across the European Union. EU member states have become increasingly reluctant to approve new GM crops, recently blocking four applications in a row from life sciences groups.

Other members of the consortium include Carrefour, France's largest retailer, Migros of Switzerland, the country's largest food chain, and Delhaize of Belgium. They are joined by Marks and Spencer of the UK, Ireland's Superquinn and Effelunga of Italy.

The consortium will find non-GM growers and ensure that the crops are segregated from GM produce while being transported to processors and in the production process. It will also establish audit and testing procedures to ensure the foods produced are GM-free.

"We always wanted GM and standard crops to be separated," said Alison Austin, Sainsbury's environmental manager. "We were extremely disappointed when this did not happen with the US soya crop."

Iceland, the UK frozen food retailer, has established its own supply chain of non-GM crops from Canada and Brazil. But Sainsbury's said yesterday that a consortium was the only way to establish GM-free sources of both crops and derivatives.

Conventional testing of foodstuffs currently detects only protein from GM crops – such as tomatoes, maize or soya meal. The protein is removed in making derivatives such as soya oil and lecithin which cannot therefore be guaranteed GM-free unless controlled from the farm-gate.

"The consortium will give us the aggregate buying power to make it commercially attractive for suppliers and guarantee that this will be an ongoing need among supermarket chains," Ms Austin said.

She added that Sainsbury's had reduced the number of own-label food products with GM ingredients from 1,500 to less than 50 and will discontinue those if it cannot find GM-free alternatives.

It will, however, continue to sell manufacturers' branded foodstuffs which contain GM ingredients – as do most of the supermarket chains which have moved to GM-free for their own products. Under European Union law, foods containing GM ingredients must be labelled as such, but this does not extend to derivatives.

Greenpeace, the environmental campaign organisation, welcomed the creation of the consortium. "The supermarkets are beginning to listen to what the public wants," it said.

It called on the supermarkets to ban all GM foods, citing poll evidence that 81 per cent of consumers wanted food producers to do more to develop organic foods.

Food labelling, Page 8

Ties with EU worsening, says Turkey

Top foreign ministry official in Ankara says the Turkish public have lost all interest in joining the Union

By Leyla Boulton in Ankara

Turkey yesterday launched an unprecedented attack on the European Union, saying its relations with Ankara were in "a sick period" and that the Turkish public had lost all interest in joining the EU.

Uluç Ozulker, the top foreign ministry official responsible for EU affairs, said relations had been in decline ever since the EU decided at its December 1997 summit in Luxembourg not to treat Turkey as an equal candidate for membership with newer east European applicants.

The crisis over Abdullah Ocalan, the captured Kurdish chief of the PKK guerrilla group, had simply made a bad situation worse.

"When the EU rejected Turkey at Luxembourg...the possibility to put pressure on Turkey lost its credibility and meaning," said Mr Ozulker, described by diplomats as one of the main architects of Turkey's strategy for joining the EU.

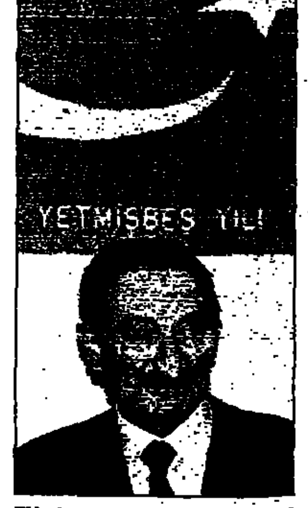
"Altogether Turkey has lost confidence in the EU," he said.

"This is creating new problems in our relationship. Unfortunately the dialogue is being distorted more and more. We don't understand each other anymore. We don't trust each other any more."

He suggested the EU's loss of influence over Turkey extended to the trial of Mr Ocalan and the Kurdish problem in general.

"If we want to rebuild our relations with the EU in a normal way, one needs to understand there are some elements which Turkey is not prepared to discuss," he said.

"Any request from the west to give autonomy [to Kurds in the southeast of Turkey]... cannot be met." He said the EU could best help by promoting with financial assistance the socio-economic development of the south-east.



EU stance on PKK has angered Bülent Ecevit, Turkish PM

Adding that ties had begun to suffer ever since Greece, Turkey's traditional foe, joined the bloc in 1981, he said a first step to improved relations would be the release of €300m ($327m) of aid promised as part of the EU's customs agreement with Turkey, but blocked by Athens. More recently, the Turkish government under prime minister Bülent Ecevit, has been irked by the EU's failure to condemn Greece for helping the PKK. Yesterday, Ankara urged Athens to "make a clean break with terrorism".

Ankara also formally demanded yesterday that Britain and Germany close down Med TV, a Kurdish television station with a UK broadcasting licence, as well as Dem and Ozgur Politika, a Kurdish news agency and newspaper based in Germany.

Faruk Logoglu, deputy undersecretary of the foreign ministry, said these outlets had incited the recent wave of violence in Turkey.

● The Turkish parliament yesterday took the the latest step in its slow-moving campaign to postpone April 18 elections by putting on its agenda a no-confidence motion in the caretaker government, which will be debated next week.

FEDERATION COUNCIL REGIONAL LEADERS REFUSE TO ACCEPT SKURATOV'S RESIGNATION

Russia's law chief at centre of dispute

By John Thornhill in Moscow

The upper house of Russia's parliament, the Federation Council, sent shockwaves through the country's body politic yesterday by refusing to accept the resignation of Yuri Skuratov as the nation's top law officer.

The move pitched Russia's powerful regional leaders – who make up Federation Council – into a confrontation with President Boris Yeltsin and threatened to provoke a full-scale political crisis.

The Russian president had previously criticised the controversial Mr Skuratov and had accepted his resignation last month on grounds of "ill health". The stand-off between the president and the upper house of parliament over Mr Skuratov raises questions about where ultimate legal authority now lies in the modern Russian state.

Mr Yeltsin, who is still recuperating in hospital from a stomach ulcer, immediately summoned Yevgeny Primakov, prime minister, to discuss the Federation Council's vote. The two leaders said it was wrong for parliament to politicise the prosecutor general's job.

"Only morally untainted people can lead the fight against corruption," a Kremlin spokesman said.

In his speech to the Federation Council, Mr Skuratov had earlier denied he was ill and said he would continue in his work if he was backed by parliament. He explained his resignation had been prompted by "certain forces" who had successfully driven a wedge between him and the president.

Mr Skuratov said his investigations had uncovered dubious practices in the government debt market. He accused several unnamed MPs and ministers, two former vice prime ministers, and high-ranking officials in the central bank of illegally enriching themselves by trading in government securities.

"Another factor that contributed to my decision [to resign] was the oligarchs, who have their own interest in the criminal cases involving corruption in the upper echelons of power," he said.

Mr Skuratov implied that Boris Berezovsky, the influential business tycoon, had been one of those behind a campaign to discredit him. "Finally, they used information concerning my private life, obtained illegally, in order to finish me," he said.

Several of Mr Skuratov's recent investigations have sparked political controversy. Last month, he disclosed that the central bank had channelled billions of dollars of its hard currency reserves through an obscure Jersey-based fund management group, called Fimaco. Mr Skuratov also sanctioned investigations into the Aeroflot airline and Avtovaz car plant, which are closely associated with Mr Berezovsky.

But the Russian media speculated that Mr Skuratov's most incendiary investigation may have concerned his enquiries into a Swiss-based company, called Mebatex, which has been linked with Pavel Borodin, the head of Mr Yeltsin's personal office.

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ECB warns on budget deficits

By Wolfgang Münchau in Frankfurt

The European Central Bank yesterday warned European governments they could be at risk of being fined for running excessive budget deficits.

In its monthly report for March, the ECB produced its most detailed and coherent critique yet of fiscal policy by national governments in the euro-zone.

While the ECB did not mention any specific countries, the comments signalled renewed confidence by the central bankers after last week's resignation of Oskar Lafontaine as Germany's finance minister. He had been a staunch critic of the ECB's monetary policy.

In its report, the ECB said yesterday: "In the event of a severe or prolonged growth slowdown, government deficits could easily approach the 3 per cent deficit limit because current fiscal plans do not incorporate sufficient safety margins."

The deficit limit is a main provision in the stability and growth pact, agreed by European Union leaders at the 1997 European summit in Amsterdam. The pact calls on governments to run balanced budgets over the economic cycle, and sets out a tough regime of penalties for countries whose budget deficits exceed 3 per cent of gross domestic product.

None of the 11 euro-zone members is in danger of breaching this ceiling in the 1999 fiscal year, although only a few are on target to achieve balanced budgets in the next few years.

The ECB said in its report that governments should set aside money to pay for necessary structural reforms to deal with ageing populations and healthcare reforms.

Since the launch of the euro in January, European economic policy has been deadlocked as finance ministers have called on the ECB to cut interest rates, while central bankers are demanding tougher action on budgets. Neither side has given ground so far.

Today, the ECB's executive council will meet for its regular fortnightly meeting, amid some expectations that the ECB would cut rates, now Mr Lafontaine has gone.

In its third report since the start of the euro, the ECB defended the present policy stance. "The current stance of monetary policy is appropriate not only to maintain price stability, but also to support economic growth and employment."

The report noted in particular the risk of a further slowdown in economic growth and the continued decline in producer prices. But the central bank also warned that high wage settlements and the weakness of the euro could put prices under pressure.

Tension between Pasok factions threatens to spoil the party

Simitis and the 'modernisers' are pressed hard by 'populists', writes **Kerin Hope**

Things have rarely looked better for Greece's governing Panhellenic Socialist Movement (Pasok).

Greece's chances of becoming the 12th member of the euro-zone are steadily improving. Inflation has hit a 30-year low and interest rates are in single digits. Prices have soared on the Athens stock exchange and small investors have flocked to the market.

A three-way split looms in the opposition New Democracy after the defection of two popular conservatives preparing to found separate centre-right parties. With the right in such disarray, Pasok is unlikely to lose in elections next year.

But as delegates gather in Athens for the opening today of Pasok's first party congress in three years, the mood is combative rather than cheerful.

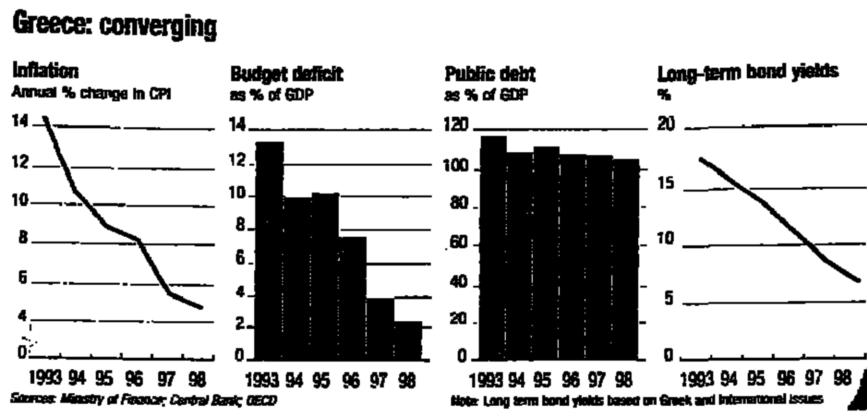
Costas Simitis, the prime minister, and his "modernising" faction are under attack from "populists" who feel the party's leftwing traditions are being uprooted.

Mr Simitis' approval rating plunged over the government's bungled attempt last month to protect Abdullah Ocalan, leader of the militant Kurdistan Workers party (PKK). An opinion poll last week in the daily Eleftherotypia showed Pasok almost 8 percentage points behind New Democracy.

Tension erupts between "modernisers" and "populists" whenever Mr Simitis talks about trying to improve relations with Turkey or backs US policy in the Balkans. But Mr Ocalan's capture after he left the Greek embassy in Kenya, and his forthcoming trial in Turkey, has triggered the most outspoken criticism of the prime minister since he succeeded the late Andreas Papandreou, Pasok's founder.

This week's congress was intended to consolidate Mr Simitis's grip on the party and push through the modernisers' platform for the European elections in June. But Mr Simitis may have to reduce his proposals for economic reform as he battles to regain credibility.

To his populist critics, Mr Simitis is a dull accountant, obsessed with economic indicators and lacking a vision for Greece in the 21st century.



Costas Simitis, Greek premier

On policy, the populists pay lip service to Greece's bid to join the euro, while objecting to measures aimed at curbing public spending. They have strong support from public sector unions, concerned about job losses and smaller pensions as markets are liberalised and privatisation extended.

Such attitudes are left over from the Papandreou period of extravagant wage and pension increases and job allocations in state enterprises to Pasok supporters.

However, Mr Simitis can count on strong support from George Papandreou, son of the late prime minister, who was promoted to foreign minister in a cabinet reshuffle prompted by the Ocalan affair. Mr Papandreou is popular with both factions but he backs the modernisers' attempt to make Pasok a modern European party.

Mr Simitis' faction will have its work cut out to dissuade delegates from raking over the Ocalan affair and addressing practical issues. Opinion polls show voters overwhelmingly in favour of Greece's entry to the euro, but increasingly dissatisfied with the slow pace of reforms.

Criticism focuses on low standards of hospital care, inefficiency and corruption and a poorly planned attempt to reform the state education system. Among young people, high unemployment is the biggest concern, despite steadily increasing investment and the launch of Greece's first job action plan.

The prime minister's aides say modernisers make up more than two-thirds of the 5,800 delegates at the congress, who will elect the central committee responsible for approving policy. Akis Tsochatzopoulos, the defence minister, who makes no secret of his ambition to succeed Mr Simitis, will back populist candidates for the central committee but is not expected to contest his re-election as party leader.

But Mr Tsochatzopoulos has threatened a showdown with Mr Simitis if Pasok finishes well behind the conservatives in the European elections. The Socialists are worried about a repetition of last October's local elections, when infighting among Pasok's grassroots organisations drove its supporters to vote for candidates from New Democracy and leftwing splinter groups.

Mr Simitis has told Pasok to pull itself together and disregard "people who are doing everything they can to keep up an atmosphere of gloom and grumbling". But he will have to work hard in the next few days to lift the mood and unite the party behind him.

NEWS DIGEST

JOB CREATION SCHEMES EXTENDED

German cabinet approves employment law changes

The German cabinet yesterday approved amendments to the country's employment laws to streamline and extend job creation schemes meant to cut the ranks of the country's 4.46m unemployed. The most important change allows jobless workers to become eligible for special job creation programmes after six months' unemployment compared with a year previously. Walter Riester, employment minister, declined to quantify the cost of the changes, which should take effect in August, but said the government hoped any additional expenditure would be compensated by savings in unemployment benefits if the new measures cut jobless totals. **Haig Simonian, Bonn**

■ Germany's information technology and telecommunications market is expected this year to exceed the size of the country's car sector for the first time, according to the German communications technology association. The market is expected to grow by 7.8 per cent to DM206bn (€105bn, $115bn), according to figures released at the opening of the Cebit technology fair in Hanover. The fastest growth is expected to occur in internet and electronic commerce. **Ralph Atkins, Bonn**

YUGOSLAVS ACCUSED OF STONEWALLING

Kosovo talks near deadlock

The chief mediator in the Kosovo peace talks said yesterday that stonewalling by the Yugoslav side made further progress unlikely, and forecast the negotiations might wind up "very shortly" with Albanian representatives signing a one-sided peace deal. As the peace talks in Paris approached deadlock on their third day, Yugoslav military preparations in Kosovo began to cause alarm. The US defence department accused the Yugoslav government of moving some 30,000 Serbian troops into and near Kosovo and of "bracing for war" with Nato. The alliance has threatened to launch air strikes if Belgrade obstructs a political power-sharing agreement with the ethnic Albanian majority in Kosovo, backed by Nato-led peacekeepers.

In Paris, Yugoslav negotiators yesterday insisted they were offering a "viable alternative" to the Kosovo autonomy plan which the Albanians have already said they will sign. But Chris Hill, the US envoy and chief mediator at the Paris conference, said: "Based on the last few days with the Yugoslav side, we would not anticipate any further progress."

David Buchan, London and Guy Dinmore, Belgrade

NEW FOREIGN MINISTER

Swiss name Cotti successor

Joseph Deiss, 53, an economics professor, has been named Switzerland's new foreign minister. Mr Deiss, who represents the French-speaking canton of Fribourg, shares the same pro-European Union views as Flavio Cotti, Switzerland's outgoing foreign minister.

Both are members of the centre-right Christian Democrats, which is facing competition from Christoph Blocher, who leads the anti-EU wing of the Swiss People's party, the junior partner of the four-party coalition that has ruled Switzerland since 1959. The appointment of Mr Deiss, and Ruth Metzler, 34, who takes over as justice minister, is part of a bid to rejuvenate the fortunes of the Christian Democrats before national elections in October.

William Hall, Zurich

PRIVATISATION PROGRAMME

Slovak state to reclaim stake

The Slovak state plans to take back a stake in an illegally privatised energy company but is doing so with the consent of the stake's owner. The National Property Fund, the state privatisation agency, told Reuters yesterday it had reached a preliminary agreement to reclaim 40.9 per cent of Nafta Gbely, the highly profitable gas storage company. Vladimir Poor, a businessman linked to the former government who bought 45.9 per cent of the company in 1996, has agreed to the plan but will retain 5 per cent.

An unknown company, later revealed to be controlled by Mr Poor, bought the Nafta Gbely stake for Sk500m ($12m) in 1996 when the stock market valuation was Sk3.2bn. The new government, which took office in October, declared the sale illegal and said it would cancel further privatisation deals found to be legally invalid.

Robert Anderson, Prague

WORLD TRADE

ANTI-DUMPING MEASURES DOMESTIC INDUSTRY 'HAS 30-YEAR HISTORY OF CRYING FOR PROTECTION WHEN THE MARKET GETS TOUGH'

House near to agreeing steel import quotas

By Nancy Dunne in Washington

The US House of Representatives was last night poised to pass legislation which would set quotas for foreign companies selling steel to the US.

"I would like to think that sanity might prevail and that they wouldn't pass something that is clearly illegal under the World Trade Organisation," said David Phelps, executive director of the American Institute for International Steel, which represents exporters and importers. "But the domestic steel industry has a 30-year history of crying for government protection when the market gets tough. And they're very well organised."

More than 200 members had already publicly supported the bill, which requires 218 for passage.

Although Democrats are likely to provide most of the bill's support, many Republicans have lined up behind it. Pat Buchanan, the firebrand economic nationalist and Republican presidential candidate, this week sent a letter to every House Republican urging support for the bill in the name of former President Ronald Reagan. Mr Reagan imposed steel quotas, which continued through the 1980s.

"If our party wishes to regain the loyalty of working Americans we knew in the 1980s, we must show that conservatism of the heart Ronald Reagan showed the steelworkers...They do not ask for subsidies; they only ask that their government not allow foreign regimes to engage in illicit dumping to kill their jobs and destroy their towns," Mr Buchanan said.

If, as expected, the bill passes the House it will have much tougher going in the Senate, where companion legislation has been introduced. It is supported by 15 of 100 senators.

Other proposals, such as the Dumping and Subsidy Offset Act, might gain more support. This would give payments to injured companies and workers provided by the duties imposed by the Commerce Department on steel found to be dumped in the US or subsidised in exporting countries' home markets.

Another proposal would establish a $1bn revolving fund to provide loans and guarantees for struggling producers. It is also possible that the Senate might give something to the steel industry as part of an omnibus trade bill, which would include presidential negotiating authority and trade preferences for the Caribbean and Africa.

Senators will be inviting comments from US steel users – companies which employ 4.3m workers compared with 170,000 in the steel industry.

"US steel consumers are benefiting from the low prices," said Mr Phelps. "The US is a hot market in a sea of not-so-hot markets. But if Congress or the government were to change this balance, these companies would quickly find themselves becoming non-competitive, and you'd hear all kinds of screaming and hollering."

World Bank 'should aid China's WTO entry'

By Peter Montagnon, Asia Editor, in London

The World Bank should provide financial assistance to China to help ease its admission to the World Trade Organisation, according to a leading trade expert.

The two organisations have similar agendas and the World Bank has done much to promote trade liberalisation not just in Asia, but also in regions from Latin America to Central Europe, said Sylvia Ostry, research fellow of the University of Toronto and a former chief economist of the Organisation for Economic Co-operation and Development.

Collaboration over Chinese membership of the World Trade Organisation would help cement a closer relationship between the institutions, which had been one of the aims of the Uruguay Round, she told the Royal Institute of International Affairs.

The bank could provide both finance to facilitate structural change in China and technical expertise. But it was also important that the WTO's own budget, currently no more than the travel budget of the International Monetary Fund, be increased.

Otherwise the WTO would not have the resources to help countries like China undergo the transformation of regulatory and legal regimes as well as economic restructuring that were implicit in membership.

Ms Ostry said that Chinese membership of the WTO involved reforms that would take time. This problem could be solved by an agreement setting out a schedule that could be monitored by the WTO in Geneva.

China's right to "most favoured nation" non-discriminatory trade status should depend on the schedule being met, and the WTO could remove it if China failed to live up to its commitments. This would imply an agreement by the US Congress to waive the Jackson-Vanik Act, requiring MFN to be reviewed on an annual basis.

Congressional leaders could be persuaded to do this if the accession agreement was strong, she said, but it might be hard to persuade the World Bank to collaborate because of its fears that China would become reluctant to reveal detailed economic information to its officials.

Ms Ostry chaired a Uruguay Round Committee exploring closer relations between the World Bank, International Monetary Fund and the WTO's precursor, the General Agreement on Tariffs and Trade.

She noted that the organisations had overlapping agendas, but financial market reforms such as those agreed by South Korea with the IMF were not legally binding in the WTO. "To add to the incoherence, both the WTO and IMF commitments are different from its OECD accession agreement."

New jet may have fewer exits

By Michael Skapinker, Aerospace Correspondent

Airbus Industrie is considering reducing the number of emergency exits on its new A340-600 aircraft, even though it will carry 80 more passengers than the standard A340.

Airbus, the European manufacturing consortium, said it was investigating building the A340-600 with eight full-sized exit doors – the same number as on the standard A340. However, the A340-600 would not have an emergency hatch over each wing, as the original A340 does.

Airbus said the plan would not compromise passenger safety, although the gap between two sets of exit doors would be 74 feet, rather than the 60 feet laid down in international safety regulations. Airbus said the 60 foot separation rule was "interim and arbitrary" and had never been finalised.

The A340-600 will carry 380 passengers, compared with about 300 on the existing A340. Airbus, which has received orders and commitments for about 100 of its new version A340s, has designed the aircraft to compete with the Boeing 747 and 777.

Airbus said the problem with emergency escape hatches over the wing was that they were difficult for passengers to use during an evacuation. Cabin crew were not in a good position to supervise passenger evacuation through the hatches.

Airbus said the larger number of passengers on the new A340-600s would not create a problem during emergency evacuations. Although the original A340 usually carried 300 passengers, safety regulators had accepted that 110 passengers could leave the aircraft through each of its large doors. This meant that if passengers were being evacuated through one side of the aircraft, 440 of them could leave safely.

The A340-600 would also have a sufficient number of full-sized doors for the evacuation of 440 passengers – 60 more than the aircraft would carry.

Field narrowing in WTO contest

By Frances Williams in Geneva

World Trade Organisation members were meeting last night to move forward the selection of a new director-general, amid growing signs that the four-strong field may shortly be reduced to a run-off between Supachai Panitchpakdi, Thailand's deputy prime minister, and Mike Moore, former New Zealand premier.

Roy MacLaren, former Canadian trade minister, was told last week that he could not win by the WTO envoys conducting the consultations on the leadership with the trade body's 134 members. Although Mr MacLaren has not formally withdrawn his candidacy, he has in effect been eliminated from the contest to succeed Renato Ruggiero of Italy at the end of next month.

Trade officials said yesterday that Mr MacLaren's backers, mostly in Latin America, were opting predominantly for Mr Moore or, to a lesser extent, for Mr Supachai, rather than Hassan Abuyoub, the former Moroccan trade minister, whose support is concentrated in Africa and the Middle East.

This suggests that Mr Abuyoub, up to now running second to Mr Supachai, has little hope of significantly improving his position and that he too could soon come under pressure to withdraw, perhaps even from his own side.

Trade diplomats said aggressive US campaigning for Mr Moore, former New Zealand premier, over the past week – aimed at the supporters of Mr Abuyoub and Mr MacLaren – had led some to urge a united developing-country front in favour of Mr Supachai.

Since developing countries represent three quarters of the WTO's membership it would then be almost impossible for Mr Moore to secure the necessary consensus around his candidacy. However, Mr Moore has fairly solid support from a number of poorer nations.

The US has nevertheless made clear it would not veto Mr Supachai.

NEWS DIGEST

CONTROVERSIAL CONTRACT

Thailand defers payment for Burma gas pipeline

Thailand has deferred its first payment of $62m to the consortium that built the controversial Yadana gas pipeline across Burma. The state-owned Petroleum Authority of Thailand said yesterday the payment would be deferred until negotiations over the 30-year take-or-pay contract, between PTT Exploration and Production, a PTT subsidiary, and the French company Total had concluded.

PTT said it was not about to renege on the contract – merely check that it could be re-interpreted in the light of changed economic conditions. Analysts said a main factor was Thailand's slump in demand for gas.

The pipeline was built despite accusations that its military protectors would engage, or had engaged, in human rights abuses against ethnic minorities in the area.

The contract required PTT to take 65m cubic feet of gas per day from August last year, rising to 525 mmcfd over 15 months. So far only 5 mmcfd has been accepted. **William Barnes, Bangkok**

AIRLINES

Aeroflot in BA link

Aeroflot, the Russian airline, is talking to British Airways about the UK carrier helping to maintain its aircraft, according to industry observers. The two airlines are also in discussions about better co-ordination of their flight times.

Passengers transferring from BA to Aeroflot services in Moscow often have a long wait between flights. BA is not thought to be considering code-sharing with Aeroflot. Code-sharing involves airlines selling seats on each other's flights. **Michael Skapinker, Aerospace Correspondent**

TRADE AND DEVELOPING NATIONS

Talks on helping the poor

Trade and development officials, international organisations, academics and non-governmental organisations yesterday began two days of discussion on ways of enabling poorer nations to take part fully in the international trading system, and how the next round of global trade talks can best reflect their interests.

The high-level meeting, the first of its kind, has been organised by the World Trade Organisation to try to improve the dialogue between trade policymakers and other interest groups. It follows a similar meeting on trade and environment earlier this week.

Some developing countries such as India and Pakistan yesterday repeated their scepticism of the benefits of a comprehensive trade round, due to be launched late this year in Seattle in the US. Poorer nations have been disappointed by the results of the previous Uruguay Round which they believe imposed onerous obligations on them without commensurate gains.

However, the UK said yesterday that trade liberalisation directed at developing country concerns would be in the interests of poorer nations, and proposed that this be coupled with duty-free access for the poorest countries, better co-operation between the international agencies and increased debt relief. **Frances Williams, Geneva**

Field narrowing in WTO contest

Israel's Shas party leader is convicted

By Judy Dempsey in Jerusalem

Aryeh Deri, leader of Israel's powerful ultra-Orthodox Shas party, was yesterday convicted of fraud, breach of trust and bribe-taking.

The verdict could affect the future of Shas, the fast-growing party which was kingmaker in the former Labour government and Benjamin Netanyahu's right-wing coalition.

Mr Deri, 40, a fervent religious believer, said he wanted to quit politics and establish a yeshiva, or seminary for Sephardi students. However, given the attitude to the courts among his supporters, it is conceivable that he could remain leader if he escapes jail when he is sentenced next week.

Much will depend on whether his supporters, and particularly Rabbi Ovadia Yosef, Shas's spiritual leader, will allow one of Israel's most skilful politicians to withdraw to the world of the Torah, or Jewish bible.

The ruling, reached after six years, 400 sessions, 150 witnesses and 41,000 pages of transcripts, puts Shas at a crossroads. The party, say its supporters, is Aryeh Deri.

Shas's extraordinary rise in power in the 1996 election owes much to the Moroccan-born Mr Deri. It doubled to 10 its parliamentary seats, thus holding the balance of power in Mr Netanyahu's coalition. If Mr Deri is jailed, Shas could lose momentum. Alternatively, the verdict could turn Mr Deri into a martyr, earning Shas more support in May's general election.

Since entering politics in the early 1980s, Mr Deri always portrayed the Sephardim, Jews from north Africa and the Middle East, as victims. They were, he said, victims of the judiciary, media and academia – elites dominated by secular European Ashkenazi Jews. The Sephardim, he claimed, were treated as second-class citizens, denied education to climb the social ladder.

Taking this message to poor families, Mr Deri built a sophisticated educational network, providing free schooling, meals and books as well as intense religious instruction to the poor. For that, say his supporters, he is a hero.

And he was also innocent, said Eli Suissa, interior minister and leading Shas member, who yesterday rejected the court's ruling: "I know Deri better than the judges." Other Shas supporters said the courts, typically, were against them.

Guilty: Deri at Jerusalem's district court yesterday

Judge Yaakov Tzemach, who headed the three-judge panel, is, however, a Sephardi, and religious. His two-hour summing up, broadcast live on national radio, was interspersed with biblical references. It was also vitriolic in criticising how Mr Deri obstructed justice.

After the trial, Mr Deri told supporters: "God has blessed us, delivering a verdict two months before the election."

Egypt may ease exchange rate line

By Mark Huband in Cairo

Egypt may adopt a more flexible approach towards exchange rate policy and the use of foreign currency reserves, after complaints by bankers that a recent rise in demand for US dollars had exposed the need for a less rigid regime.

The Central Bank of Egypt (CBE) has maintained a peg of E£3.39 to the US dollar since 1991 and sought to maintain its foreign currency reserves at $19bn-$20bn, as essential elements of its monetary policy.

Bankers and economists have been pressing for a shift in strategy, as the strict peg has come under strain in face of a fall in foreign currency inflows.

Pressure for the CBE to release part of its $19.6bn currency reserves has also grown in response to an 8 per cent rise in imports in 1997-98, worsening the trade deficit, exacerbated by lower than expected exports and low oil prices.

The Egyptian pound has lost 2 per cent of its value as the demand for dollars has increased in the past few weeks, falling to E£3.46 at foreign exchange bureaux. Some senior government officials are now insisting that the CBE accept this market rate as the official rate.

"Now, there is no problem of availability. But the rate is floating, and the government should now accept that there are variations in the rate and that the level of reserves should not be seen as sacred," one government official said yesterday.

If the CBE does ultimately accept that this key area of policy is no longer under its strict control, it will mark a big step towards liberalising the market.

Meanwhile, the CBE has kept its established rate. To meet demand for dollars, it has put $750m in three tranches in the past two weeks on to the market.

NEWS DIGEST

FOREIGN EXCHANGE MARKET

International clearing house to suspend service

Exchange Clearing House, the multilateral foreign exchange netting service, is to suspend its services and look for other ways of offering services to reduce settlement risk. Echo was taken over last year by CLS Services, set up by leading international banks to build a new settlement system for the foreign exchange market.

Its multilateral netting system allows banks to offset the amounts they owe each other, so reducing the amounts of money they have at risk in the days between dealing with another bank and actually receiving payment.

But Echo has found that banks, whose IT resources have already been tied up in preparation for the euro and the year 2000, are focusing directly on the launch next year of CLS Bank. This global clearing system, being set up by Echo's parent, will allow payment of the two legs of a foreign exchange trade to be settled simultaneously, and so eliminate settlement risk.

Daily trading volumes in the foreign exchange market average $1,490bn, but the amounts at risk in the settlement system can be several times that, since each foreign exchange trade comprises one payment in each direction, and since settlement delays can spread over several days.

Although many commercial banks have viewed this settlement risk as limited, central banks have been pressing for a solution. They fear that without improvements in the system, even a relatively small bank collapse could seriously disrupt financial markets.
George Graham, Banking Editor, London

COMPUTER SOFTWARE

Lebanon passes piracy law

Microsoft, the world's largest software company, yesterday said it would open an office in Lebanon after the country passed a law prohibiting the piracy of computer software and protecting intellectual property rights. Parliamentarians ratified the bill after the government satisfied them that software manufacturers had affirmed interest in offering discounts on software of up to 90 per cent for schools, universities and government departments.

The debate has highlighted problems of protecting intellectual property rights in emerging countries without adequate legislative protection for computer software companies. Microsoft says more than 90 per cent of its software in Lebanon is used illegally. **James Schofield, Beirut**

IMF GOLD SALES PROPOSAL

South Africa issues warning

The South African cabinet yesterday warned that the proposed sale of gold to fund Third World debt could create new problems for gold-producing countries. Gold prices dropped after US President Bill Clinton and French President Jacques Chirac over the past week urged the International Monetary Fund to sell some of its more than 1m-ounce stockpile.

South Africa is the world's largest gold producer. Other African producers include Ghana, Congo and Tanzania. South Africa would benefit little from an IMF debt relief programme since its foreign debt is low. **AP, Cape Town**
Commodities, Page 28

Boesak guilty on theft and fraud charges

By Victor Mallet in Johannesburg

Allan Boesak, the former preacher who campaigned for democracy in South Africa with fiery anti-apartheid sermons in the 1980s, was yesterday found guilty of fraud and theft involving foreign aid donations to apartheid's victims.

Giving judgment in the Cape High Court, Judge John Foxcroft said Mr Boesak was guilty of three counts of theft and one of fraud totalling R1.3m ($210,000).

Included in the money he stole was R259,000 of the sum raised by the singer Paul Simon with his Graceland tour in South Africa in 1988. The cash was intended for child victims of racial discrimination. "The accused wrongfully and unlawfully appropriated money intended for the children of South Africa," the judge said.

Yesterday's verdict is an embarrassment for senior members of the ruling African National Congress who expressed sympathy for Mr Boesak as he went to trial, including President Nelson Mandela.

Dullah Omar, justice minister, was particularly outspoken in his support. His use of the phrase "struggle book-keeping" – suggesting it was normal for anti-apartheid activists hounded by the former security forces to have irregular accounts – prompted howls of protest from opposition parties.

Mr Boesak, who headed the now defunct Foundation for Peace and Justice, also stole R746,000 of Swedish government aid intended for voter education in the run-up to the 1994 election that ended apartheid, and a further R323,000 of foreign donor funds. Some of the money was used to buy houses or given to Elna, his second wife.

Judge Foxcroft acquitted Mr Boesak – who had pleaded not guilty to all charges – on 23 other counts involving money from Danish, Norwegian and other donors, including Coca-Cola.

He said there were many instances where Mr Boesak's behaviour had been suspicious and irresponsible, but there was a lack of evidence about which funds were supposed to be used on each project. Gross dereliction of duty, the judge said, was not necessarily a crime.

Mr Boesak has spectacularly fallen from grace since his heyday as a political leader in the Western Cape a decade ago. Sexual scandal was followed by financial scandal, forcing him to step down as president of the World Alliance of Reformed Churches in 1990 and the South African ambassadorship to the United Nations in Geneva five years later.

Freddie Steenkamp, his bookkeeper, has already been jailed for six years on related charges. The hearing resumes on Tuesday for legal arguments about what sentence he should receive.

World Bank arm may raise $4bn for Brazil

By Stephen Fidler in Madrid

The World Bank's private sector arm plans to create a fund that could raise up to $4bn to provide finance for Brazilian companies facing heavy foreign debt repayments.

The purpose of the proposed fund, the Brazil Corporate Trust, would be to provide Brazilian companies with access to foreign currency credits so they could repay foreign borrowings.

The discussions are in the early stages, but the proposal would call for an innovative use of guarantees from the World Bank.

The proposal was disclosed by Peter Woicke, executive vice-president and head of the International Finance Corporation (IFC), at a conference on financial risk in Madrid.

Mr Woicke, who took over his position this year, said the idea was to help avoid an Asian-style collapse of Brazil's corporate sector brought about by an extended lack of access to international capital.

He said the proposal called for the fund to be underpinned with some $300m-$500m of equity to be provided by the IFC and BNDES, the Brazilian development bank. This would cushion the trust against losses.

The World Bank would provide a guarantee of some $1bn to cover the transfer risk – the prospect that repayments on loans made by the trust would be interrupted by Brazilian policy, such as controls on capital outflows.

Commercial banks would be approached to make a syndicated loan of as much as $3bn to $4bn.

The IFC would hope to initiate discussions with lending bank regulators to ensure the loans were not defined as Brazilian risk, thereby avoiding the need for the government to immediately provide reserves, Mr Woicke said.

Many Brazilian companies have issued bonds in the international bond market with maturities of five or seven years, but many contain "put" options which allow investors to redeem the bonds after three years. Many of these options will start coming due shortly. The New York-based Weston Group calculated that $3.98bn Brazilian public and private sector international bonds come due this year, but this figure rises to $7.5bn if the exercise of put options is taken into account.

Thus, even though the level of foreign corporate debt is lower than in hard-hit Asian countries, some companies could be badly hit if the crisis continues to prevent them refinancing their debts owed abroad.

The issues raised by the fund are sure to set off an intense debate. One issue will be to ensure the trust is used only for companies that could not otherwise refinance maturing debt – and not simply to allow them to do it more cheaply.

Many in the World Bank are sceptical about the use of guarantees and say the limited resources it has for each country could be better used elsewhere, for example on social projects.

Intel to halt discrimination in legal clashes

By Richard Wolffe in Washington

Intel, the world's largest chipmaker, agreed to stop discriminating against its customers in legal disputes over new technology, as part of its antitrust settlement with US officials.

The company promised to supply its chips and advance technical information – which are crucial to customers wanting to use its latest products – even when the company is engaged in intellectual property disputes.

The settlement was negotiated with staff from the Federal Trade Commission (FTC) last week on the eve of a landmark antitrust trial, but details only emerged yesterday when commissioners approved the deal.

Intel was accused of abusing its market power to force three companies to hand over their patented technology to Intel. The companies – Digital Equipment, Intergraph and Compaq – were all engaged in intellectual property disputes with the chipmaker.

FTC officials say the settlement represents a significant success for the agency in a case which some legal observers had criticised for stretching anti-monopoly laws.

Intel, which agreed to the main demands outlined in the FTC lawsuit, insisted the settlement was a compromise for both sides. In particular, the chipmaker escaped being labelled a monopolist by the court, which could have triggered a series of private lawsuits against the company.

Robert Pitofsky, chairman of the FTC, said: "The heart of the commission's complaint against Intel was the principle that a monopolist cannot withhold products or information about products in order to retaliate against customers who find themselves in an intellectual property dispute.

"We recognise that there is an essential balance to be struck between protecting the incentives of smaller rivals to innovate and unduly constricting a dominant firm's conduct of its business."

Intel had consistently argued that the lawsuit would interfere with its constitutional rights to defend its own patents and freely negotiate its own terms and conditions with customers.

Craig Barrett, Intel's president and chief executive, said: "I am very gratified that we could come to these terms with the FTC in a cooperative spirit. Although we have different interpretations regarding Intel's market position and the legality of our past actions, the compromise provides a framework for resolving future intellectual property disputes with our customers."

Under the terms of the settlement, Intel is allowed to discriminate between its customers for legitimate business reasons. These include customers which have broken agreements about the use of the technical information, and those using the information to design competing microprocessors.

The FTC said it was still pursuing other inquiries into alleged antitrust abuses by Intel, but has refused to give details of its remaining concerns. FTC officials have said the settlement was designed to build confidence in the wider industry that the agency was prepared to take action against Intel.

Pinochet to learn his fate next week

By John Mason in London

General Augusto Pinochet, the former Chilean dictator, will learn next Wednesday whether he has immunity from prosecution for alleged crimes against humanity or faces extradition to Spain to stand trial.

The House of Lords, the UK's most senior court, will give its long-awaited judgment on what is widely seen as a test case of international human rights law.

The Spanish authorities are seeking Gen Pinochet's extradition from the UK to face charges of torture, hostage-taking and conspiracy to murder during his rule of Chile in the 1970s and 1980s.

If the Lords rule in Gen Pinochet's favour, it is expected he will be flown back to Chile within a matter of hours. If the Lords clear the way for extradition to Spain, further legal challenges are likely to delay any extradition until the end of this year.

Gen Pinochet has claimed that he is immune from prosecution as a former head of state and that Spain has no legal right to bring such proceedings against him.

During the UK hearing in January, the Chilean government also argued against Gen Pinochet's extradition to Spain.

TAXATION ADMINISTRATION AND TOP REPUBLICANS JOIN FORCES TO LIMIT SHARP MARKETING OF SHELTERS

Bipartisan drive to curb tax loopholes

By Deborah McGregor in Washington

Influential Republicans in Congress and the Clinton administration are rallying round plans to curb aggressive marketing of corporate tax shelters.

The rare convergence of views comes when Republicans, eager to find ways to pay for tax cuts, are more open than usual to closing tax loopholes, especially if they are perceived as abuses of the income tax code.

US Treasury officials are preparing a white paper to clarify what they consider to be the worst abuses, building on the specific proposals included in President Bill Clinton's February budget for 2000.

The document is expected to be released next month; some of the worst practices could be outlawed by the end of the year. Bill Archer, the Texas Republican who chairs the tax-writing Ways and Means committee in the House of Representatives, is giving business lobbyists little comfort on the issue.

He has long favoured getting rid of income tax altogether but, barring that, has signalled he is open to reviewing some of the corporate tax practices in question.

Mr Archer will retire next year after serving 30 years in Congress and is said to be anxious to leave his stamp on a streamlining of the tax system.

He has repeatedly voiced his disapproval of activities designed solely to avoid tax in ways not intended under the original law.

"The chairman has clearly said he does not look kindly on deliberate perversions of the tax code," said an aide to Mr Archer. "I think people understand he is serious about that."

At the root of the problem is an estimated $10bn annual drain on the federal Treasury caused by unusually aggressive marketing of corporate tax shelters by lawyers and professionals, including large accounting firms.

Using tactics that have raised eyebrows even within the close-knit tax community, these tax shelter marketers have inundated federal tax authorities with cases designed to test the boundaries of corporate tax law.

Treasury officials note that it has become commonplace for chief executives to be intensely lobbied by accounting firms trying to market new and inventive ways to avoid corporate taxation.

Texas Republican Bill Archer: giving business lobbyists little comfort on the issue AP

To date, there has been little to deter these firms from launching what would, in the past, have been considered frivolous cases on behalf of corporate clients.

In fact, the fees which are charged for such advice are currently tax-deductible, and this is a provision the Clinton administration has vowed to end.

The Treasury hopes to put pressure on the phenomenon. "Corporate tax shelters erode the integrity of the tax system as a whole," said Donald Lubick, assistant Treasury secretary for tax policy.

Clarifying activities it wants to see stopped, the Treasury last week released a ruling to curb the use of so-called lease-in/lease-out arrangements, which had allowed US taxpayers to avoid tax on substantial amounts of income through the use of back-to-back leasing arrangements with foreign parties.

Most congressional Democrats support the loophole-closing drive.

On the web today

- Meltdown fears fall away in Latin America
- Veteran policymaker ponders Brazil's mistakes of the past
- Janet Reno backs end of counsel dispute

http://www.ft.com/americas

US INSPECTIONS WASHINGTON EXPECTED TO OFFER 500,000 TONNES OF FOOD AID

N Korea missile deal eases fears

By John Burton in Seoul

The agreement by North Korea this week to allow the US to inspect a suspected nuclear weapons site has eased fears of an imminent security crisis in north-east Asia, but Washington must still tackle the more difficult problem of the North's development of long-range missiles to prevent further regional instability.

The inspection accord concluded on Tuesday marks a victory for a policy of engagement towards North Korea favoured by the US and the South Korean government, which has been criticised by conservative opponents. It is also likely to affect a report to be issued in early April by William Perry, a former US defence secretary, on US policy towards North Korea, which had been expected to take a hardline stance.

South Korea yesterday welcomed the inspections of the large underground facility, north-east of Pyongyang, and said it was preparing to send fertiliser to the North to help ease its famine in a good will gesture. The US is expected to offer later the supply of 500,000 tonnes of food aid through the World Food Programme of the United Nations.

North Korea and the US also agreed to resume talks on limiting the North's missile development and export to the Middle East, with a meeting scheduled for March 29 in Pyongyang.

The North's firing of a long-range Taeopdong-1 missile over Japan last August is threatening to upset the regional security balance. A worried Japan agreed to participate in the development of a US theatre missile defence (TMD) system for north-east Asia in response to the North's missile test.

That has provoked an outcry from China, which is concerned the US will extend the TMD system to cover Taiwan. It has further strained Sino-US relations. A decision by North Korea to abandon its missile programme would reduce tensions and might remove the need for an Asian TMD. But the North insists the missile issue is one involving "sovereign rights" and is expected to demand $1bn in compensation for suspending the

North Korea is expected to demand $1bn in compensation

programme.

The inspection accord, however, is likely to reduce the chances of North's firing another missile since Pyongyang has a stake in promoting regional stability by receiving agricultural aid, analysts in Seoul said.

Tokyo has warned that it would withdraw $1bn in support for a 1994 nuclear agreement, under which Pyongyang agreed to freeze its suspected nuclear weapons programme in return for fuel and safer reactors to be financed by Japan, South Korea and the US, if the North tested another missile.

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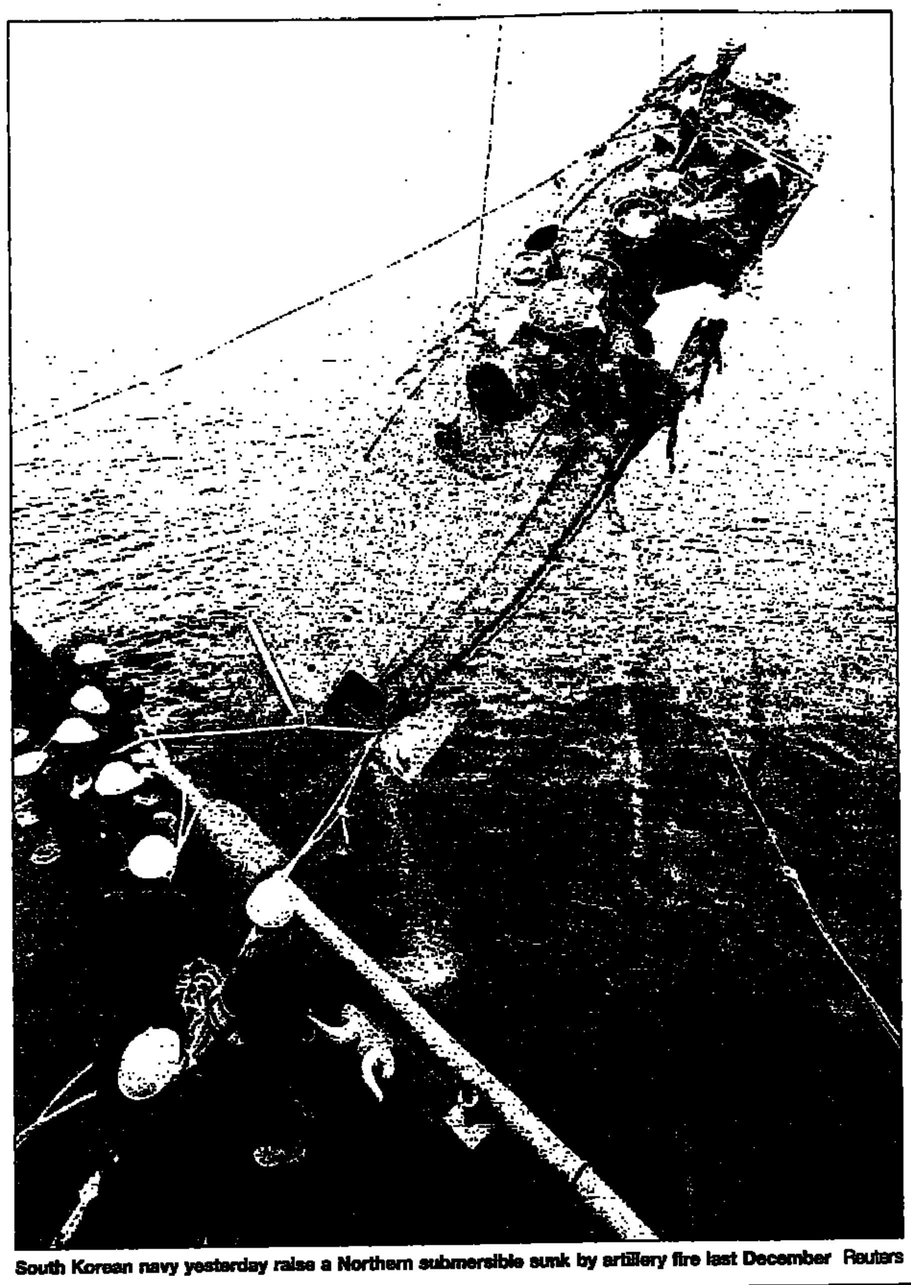

South Korean navy yesterday raise a Northern submersible sunk by artillery fire last December Reuters

Chaebol resist attempts for greater transparency

John Burton reports on a one-man battle to prise open the conglomerates

Jang Ha-sung, a professor of finance at Korea University, was preparing to fly recently to London and New York to persuade foreign fund managers to support his campaign for better corporate governance at Samsung Electronics, the world's leading producer of computer memory chips.

But the trip was cancelled at the last minute when Samsung "expressed its unhappiness" to foreign investment banks about their arranging meetings between Mr Jang and institutional investors before Samsung's shareholders meeting on Saturday.

"We felt [this] harmed the spirit of co-operation between Samsung and the banks," said Chang Il-hyung, vice-president of corporate communications at Samsung Electronics. "Why should they help someone opposing us?"

Analysts say the incident illustrates how South Korea's big conglomerates, or *chaebol*, are still resisting demands for improved transparency and accountability despite being blamed for last year's financial crisis. It also shows how faith in foreign investors being able to bring about changes at the *chaebol* might be misplaced.

Mr Jang is used to encountering opposition to his campaign. When he launched a movement for minority shareholders' rights, he received threatening telephone calls. But he has scored notable victories nonetheless.

A Seoul court last year fined top executives of troubled Korea First Bank Won40bn ($32.4m) for mismanagement in a precedent-setting case filed by Mr Jang's group, the People's Solidarity for Participatory Democracy.

Mr Jang then succeeded in placing outside directors on the board of SK Telecom, Korea's leading mobile phone operator, to prevent the highly profitable company from subsidising weaker units of the SK group, the nation's fifth biggest *chaebol*.

The professor is now concentrating most of his attention on Samsung Electronics, the flagship of Korea's second-ranked *chaebol*. At its shareholders' meeting last year, he grilled executives for 13 hours about alleged hidden subsidies the chipmaker gave to the group's ill-fated car company.

He has also filed a suit demanding Lee Kun-hee, the Samsung chairman, and other senior executives personally reimburse the group Won300bn for the alleged misuse of corporate funds for illegal political contributions and investments in failed subsidiaries.

Mr Jang is preparing to press his case at the shareholders' meeting on Saturday by demanding changes to the company's bylaws that would boost minority shareholders rights and increase the supervisory power of the board over the decisions of the group's family owners.

"Samsung Electronics is one of the best companies in Korea," says the youthful-looking 45-year-old professor, a doctoral graduate from the Wharton School of Finance in the US. "I trust the professional managers, but the problem is with the chairman and the group management."

On paper, Mr Jang has a good chance of winning since foreign shareholders control 52 per cent of Samsung Electronics. But Samsung recently conducted an international roadshow to collect proxy votes from overseas investors.

Equity analysts agree the proposed changes by Samsung do not go far enough, but "most shareholders are not likely to be antagonistic as long as the management is competent", said one.

"We have met Professor Jang more than halfway by adopting 90 per cent of his proposals," said Mr Chang, although Samsung is still resisting the cumulative voting system and board approval for internal transaction of Won10bn or more because they "ignore business reality".

Samsung Electronics agreed with other companies targeted by the professor, including SK Telecom, Hyundai Heavy Industries, LG Semicon and Daewoo Corp, to hold their shareholders' meeting on the same day to prevent him attending all the events.

NEWS DIGEST

VERDICT MAY BE GIVEN ON MONDAY

Pakistani court closes Bhutto hearing

A Pakistani anti-corruption court yesterday abruptly closed the hearing in a case against Benazir Bhutto, the former prime minister, and said a verdict could be announced on Monday.

The case involves accusations that Ms Bhutto and her husband, Asif Ali Zardari, received a 6 per cent commission in kickbacks for a contract given to the Geneva-based SGS, the Swiss cargo pre-inspection group.

A conviction could make Ms Bhutto and Mr Zardari liable to up to seven years' imprisonment and disqualification as members of the parliament. However, they could appeal to the supreme court, lawyers said.

The case is one of several facing Ms Bhutto and Mr Zardari. Ms Bhutto was sacked as prime minister in November 1996 after accusations of corruption during her rule. Her husband, a minister in her government, also faced accusations of receiving kickbacks to influence government contracts. **Farhan Bokhari, London**

KHMER ROUGE

Annan backing for trial

Kofi Annan, UN secretary-general, recommended yesterday that Cambodia's Khmer Rouge leaders be tried before an international tribunal rather than a national court, his spokesman said.

"Impunity is unacceptable in the face of genocide," Mr Annan said in letters to the UN General Assembly and the Security Council. The Khmer Rouge are held responsible for the deaths of more than 1m people in the 1970s. The Cambodian government last Friday rejected an international trial as recommended by a three-member panel appointed by Mr Annan. **Reuters, UN**

MEETING WITH EU

Asean backing for Burma

The Association of South East Asian Nations (Asean) said yesterday that a proposed meeting with the European Union would not proceed unless Burma was allowed to participate. "Asean is not accepting in a situation where not all foreign ministers can participate in the Asean-EU meeting," said Rodolfo Severino, the association's secretary-general. The EU bars high-level contacts with Burma, which joined Asean in 1997, because of its human rights record. **Reuters, Jakarta**

HUMAN RIGHTS

Beijing warns EU

China warned European Union states yesterday not to push for a censure motion against Beijing at next week's UN Human Rights Commission meeting. Tang Jiaxuan, the Chinese foreign minister, starting his tour of EU capitals in Helsinki, said after talks with his Finnish counterpart, Tarja Halonen, that dialogue, not confrontation, was the way to improve human rights in China.

Ms Halonen said EU foreign ministers would discuss whether to press on with the censure resolution at their meeting this weekend in Germany but she did not say what Finland's view was: "The main thing is that there will be a unanimous decision by the EU." **Reuters, Helsinki**

UK ADVICE TO EXPATRIATES

Dhaka assault alleged

The British High Commission in Bangladesh has advised British expatriates that no women should go to police stations unaccompanied. This follows the alleged rape of a British woman by four policemen.

The woman said she had been assaulted when she went to a Dhaka police station to report the loss of some personal property, according to diplomatic sources. The British consul, Geoffrey Fairhurst, has advised Britons "that women should not go to police stations or similar agencies unaccompanied". **David Chazan, Dhaka**

Hopes of better Pakistan ties with India

By Mark Nicholson in New Delhi

South Asia's foreign ministers begin a two-day regional summit in Sri Lanka today – a gathering that will be most closely watched for signs of progress in recently improved relations between nuclear rivals India and Pakistan.

Jaswant Singh, India's foreign minister, will meet Sartaj Aziz, his Pakistani counterpart, for an "informal" direct meeting tomorrow in the margins of the summit, offering the first indication of the two sides' ability to build on the goodwill generated at last month's summit in Lahore.

Both sides promised then to upgrade bilateral talks to foreign minister level, but failed to set a schedule for such meetings, or indeed for a reciprocal visit to India by Nawaz Sharif, Pakistan's prime minister. Tomorrow's meeting may flesh out these broad promises.

Any signs of a further thaw in bilateral relations are likely to overshadow the working agenda of the seven-nation South Asian Association for Regional Co-operation (Saarc) meeting in the Sri Lankan hill resort of Nuwara Elija, 180km east of Colombo.

The ministers meet under tight security following a suicide bombing near the site of the summit this week and police discoveries of undetonated bombs nearby.

The foreign ministers of India, Pakistan, Bangladesh, Sri Lanka, Nepal, Bhutan and the Maldives are expected to review progress towards a third round of tariff cuts within the 14-year-old grouping, while considering a report on Saarc's longer-term future – including proposals to create a fully fledged regional economic union. Saarc leaders have agreed to conclude a free trade treaty by 2001, which they expect could be implemented by 2011.

The focus on India-Pakistan relations is nevertheless appropriate, given that their traditional animosity has been among the chief reasons for the relative modesty of Saarc's achievements.

Though intra-regional trade has risen slightly since it began seriously addressing tariff and other commercial issues in 1993, it still accounts for just 4 per cent of the seven countries' total foreign trade. Analysts believe intra-regional trade could be more than doubled within five years, given greater trade liberalisation.

MOTOR INDUSTRY FAIR TRADING CHIEF ATTACKS REFUSAL OF SUPPLIERS TO GIVE VOLUME DISCOUNTS

Competition probe into vehicle sales

PA News Reporters in London

The Monopolies and Mergers Commission is to investigate vehicle sales.

The investigation, which mirrors a similar inquiry in 1992, follows a seven-month inquiry by the Office of Fair Trading involving manufacturers, dealers and dealer transactions.

John Bridgeman, director-general of fair trading, said yesterday: "It is clear that the market isn't working properly and that there is an imbalance of power between manufacturers and dealers which is distorting competition."

In a strong attack on the motor industry, Mr Bridgeman spoke of "suppliers' continued refusal to give volume discounts to dealers which could be passed on to the consumer as lower prices and by other practices designed to exert a strong influence over selling prices".

He added: "Our inquiry met with a dilatory and unco-operative response from some manufacturers and dealers, and has taken far longer than it should have done because of that."

The official spokesman for Tony Blair, the prime minister, said the government welcomed the referral. "Hopefully it will lead to a better deal for British consumers," he said.

There has been a trend for manufacturers to reduce trade discounts and make up the shortfall for favoured dealers with discretionary bonuses, the OFT said. "These bonuses can be used to put pressure on a dealer to toe the line on prices and not sell vehicles outside their allocated areas," it added.

The Society of Motor Manufacturers and Traders said: "Manufacturers and retailers have nothing to hide."

It added that the European market was "highly regulated and competitive" and the industry worked within UK and European rules.

Paul Everitt, head of policy at the SMMT, said: "We are complying with the rules and we believe that the British consumer is getting a good deal. We are offering very competitive prices. You have to remember that the prices compared in European surveys look merely at the list price of vehicles. What people actually pay in Britain is usually a lot less.

"We note that the terms of reference for the MMC are very, very broad. It will not be looking into specific practices but looking at the whole sales and distribution system across the board."

Mr Bridgeman's referral of the issue to the MMC was warmly welcomed by the Consumers' Association. "The OFT have confirmed our findings that the car market is not working and the cosy relationship between manufacturers and dealers is producing unjustifiably high prices for UK consumers," said Sheila McKechnie, the organisation's director.

Mr Bridgeman's investigation follows a number of surveys showing many new cars are far cheaper in mainland Europe than in the UK.

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German model for trade unions

By Robert Taylor, Employment Editor

The Trades Union Congress is launching a 10-year programme to modernise unions through drastic restructuring. The plan is for fewer, sector-based unions following the German model.

The TUC fears an outbreak of inter-union disputes after the introduction of union recognition in companies later this year and wants to minimise this danger. John Monks, TUC general secretary, said it would involve the most radical attempt at reform for more than 40 years. "We want to develop a more logical structure that promotes partnership and co-operation."

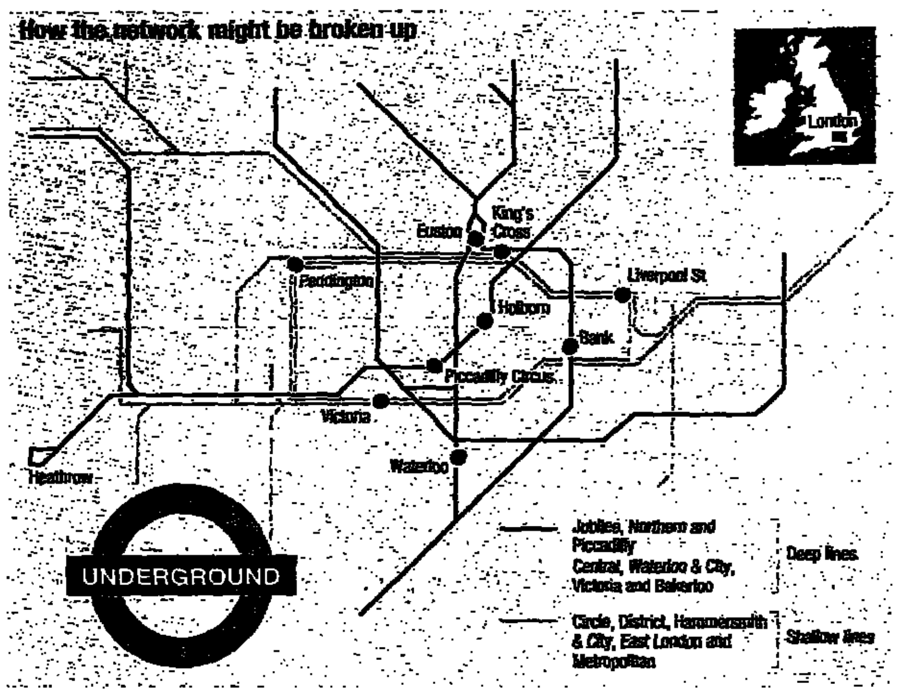
His proposals, approved by senior union leaders yesterday, involve a new union structure with a speed-up in union mergers. At present the TUC has 76 unions covering 6.8m workers. Mr Monks wants to see fewer unions "desirably perhaps with one union in key sectors like public services, education, transport, private services and manufacturing".

He stressed, however, that smaller, occupation-based unions would have a role in the future. Workers were changing jobs more frequently and unions must become more adaptable so members could change unions while retaining their benefits.

His consultation plan wants unions to wake up to the new individualistic mood among workers with their "freedom to choose" what union to join, says: "The TUC is, on occasion, increasingly hard-pressed under its present rules to oppose that mood especially as our present structure lacks convincing logic. TUC rulings can much more easily and uncomfortably be presented as anti-democratic and anti-freedom."

Rail plan sheds little light on questions of timing

Reaction to the report on a public-private partnership for London Underground has been cautious, says **Charles Batchelor**



The plan to bring private capital to the London Underground railway network has become clearer this week. The "progress report", compiled by London Underground in consultation with the government, shed light on many of the issues that have concerned would-be private bidders for concessions on the railway over the past 12 months. London Underground is the state-owned operator of the railway.

It confirmed the basic structure of the public-private partnership. The infrastructure – track, tunnels and stations – will be leased to the private sector under concessions lasting between 25 years and 30 years, but operations will remain with a publicly owned body.

It also eased growing fears that the project had become entangled in its own complexity. But it still leaves crucial questions unanswered on timing, risk transfer and the number of concessions. The timetable concludes in early 2000 with the evaluation of the bids. The government might decide at that point that none of the bids offered value for money and opt for an alternative strategy.

It is unlikely the project could restart on a different tack, but there are plenty of other suggestions for funding the railway – including a proposal for a transport authority with its own fund-raising powers.

The government will have in mind the Channel tunnel rail-link fiasco, in which the finances had to be restructured when it became clear that passenger number forecasts were over-optimistic.

The tentative date set for completion of the public-private partnership for the Underground is "late 2000 or 2001". No firm deadline has been set because this would strengthen the hand of the private sector bidders in negotiations with the government, says Tony Poulter of PwC, financial advisers to the project. But the timescale puts the project perilously close to a possible national election early in 2001.

Allocating risk between the public and private sectors has proved exceptionally tricky for the railway, where the exact state of 100-year-old tunnels and embankments can be difficult to assess.

It has also been difficult to devise a scheme flexible enough to take account of changing investment needs.

The proposed solution is to review the contracts every 7½ years. This would allow payments to the companies to be reduced if costs were cut through efficiency improvements, or increased if more spending were needed. Any disagreements over the charges at the review stage would be resolved by an independent arbiter.

This formula takes account of any gradual deterioration in the railway's infrastructure but leaves unresolved the issue of sudden catastrophic failure. Underground chiefs know much more about the state of the network's infrastructure than British Rail did at a similar stage in its privatisation, says Denis Tunnicliffe, London Transport's chief executive. British Rail was the operator of the national state network apart from the Underground.

But this assurance is unlikely to satisfy the private sector and it appears likely that catastrophic risk will be left with the public sector. London Underground is working on the assumption that there will be three infrastructure concessions – one for the shallow, sub-surface lines and two for the deep tunnels. But it does not exclude the possibility of more than one concession being bundled into a single contract. The sub-surface concession is expected to require £3.16bn ($5.08bn) of investment over the next 15 years; the two deep-line concessions would require £2.31bn and £2.67bn.

Clinton urged to act on N Ireland impasse

FT Reporters in Washington and London

President Bill Clinton was yesterday urged to step up pressure on Gerry Adams, president of Sinn Féin, the political wing of the Irish Republican Army, to break the deadlock in the North Ireland peace process.

David Trimble, the Ulster Unionist party leader and first minister in the region's new administration, insisted in Washington yesterday that Mr Clinton could use "a number of discreet pressure points" to begin the process of decommissioning paramilitary weapons.

In a reference to Mr Adams gaining a US visa in 1995, Mr Trimble said: "The president has some favours to call in."

However, the White House again played down expectations of intervention as Washington marked St Patrick's Day with a series of talks between US and Irish political leaders. James Steinberg, the president's deputy national security adviser, said: "This is clearly not a negotiating session. This is not the role that the US plays as part of the peace process."

Martin McGuinness, Sinn Féin's chief negotiator, told a St Patrick's Day dinner in Scranton, Pennsylvania, that unionists were slowing down the implementation of the agreement by elevating the decommissioning of IRA weapons over other issues.

At a function organised by the Friendly Sons of St Patrick, he said the "sense of political resurrection" last Easter had been substituted recently by "anxiety, concern and despair".

● A leading loyalist was yesterday shot dead in Belfast, Northern Ireland's principal city. Frankie Curry had been linked to dissident loyalist (anti-nationalist) groups after being expelled from the Red Hand Commando which is observing a ceasefire. He was released from prison on Monday after serving a short sentence for a motoring offence.

Police said last night that the motive for the killing remained unclear. However, both loyalist and republican sources discounted earlier reports that it may have been a retaliation by republicans for the murder on Monday of Rosemary Nelson, the lawyer who was blown up by a bomb in her car.

Territories are given terms of passport offer

By David Buchan, Diplomatic Editor

The government yesterday told Britain's overseas territories that they must rapidly bring regulation of their financial centres up to UK standards as part of the price of their people regaining full British citizenship.

Robin Cook, the foreign secretary, proposed "a renewed contract" between Britain and its remaining outposts of empire.

In return for offering UK passports, the UK government also makes clear it expects the territories to observe UK norms in human rights and environmental protection as well as financial regulation. The territories, which have a total population of fewer than 200,000, include Gibraltar and the Falkland Islands whose residents already have UK passports. The others, with a total population of about 150,000, are island territories in the Caribbean, Atlantic and Pacific.

The UK government said that by the end of this year it wants overseas territories to complete several measures.

They should regulate their offshore companies, prevent money laundering, modify secrecy laws to allow co-operation with international investigations, create licensing regimes that promote fair competition and establish independent regulatory authorities. The UK Overseas Territories Association (Ukota) claimed yesterday that most of these measures, which are aimed at Caribbean tax havens, were already in place.

Cayman Island and British Virgin Islands had signed up to the Vienna Convention on money laundering, Turks and Caicos and Anguilla were in the process of doing so, while only a recent election had prevented Bermuda from adding fiscal crimes to those covered by the convention.

However, Ukota conceded that few overseas territories yet had independent regulatory regimes. Financial regulation in Gibraltar is already up to UK standards, the government asserts, despite Spain's contrary claims.

The UK Foreign Office cautions of the knock-on effect of EU legislation. It notes Britain signed up to the 1997 EU code of conduct against "harmful tax measures", and that member states are committed to ensuring the principles of the code are adopted in their dependent territories.

It also warns that if Britain loses its fight against current EU moves to tax non-resident savings or provide information on such income to other states, then the territories might have to comply with any new EU measure.

MURDOCH EMPIRE ALLEGATION FOCUSES ON SOCCER CLUB BID FROM BROADCASTER

Fair trading office in leak claim

By David Wighton and Cathy Newman in London

The Office of Fair Trading was last night accused by ministers and officials of being connected to an alleged leak of the Monopolies and Mergers Commission's report into the controversial £624m ($1bn) bid by British Sky Broadcasting for the Manchester United soccer club.

The OFT strenuously denied any involvement in a newspaper report which suggested that the MMC had called for the takeover to be blocked. BSkyB is the satellite television network in which Rupert Murdoch's media conglomerate is the biggest stakeholder.

Most observers had expected the MMC to clear the takeover subject to conditions and BSkyB and Manchester United both fell sharply in London. United's shares fell 21p to 219p, while BSkyB's shed 7½p to 542½p.

The MMC report is known to be "highly complex" and some competition experts believe it may have concluded that the takeover would operate against the public interest without undertakings from BSkyB and that there were doubts about the enforceability of the conditions. The undertakings would be designed to prevent BSkyB using its ownership of the club to gain an unfair advantage when negotiating broadcasting rights to football matches.

John Bridgeman, the head of the OFT, is believed to be concerned about the takeover and there was speculation last night that he had recommended it be blocked, even if the MMC had given it conditional clearance.

The MMC's conclusions on the controversial deal were delivered on Friday to Stephen Byers, the chief industry minister, who is expected to announce the final decision on the deal next month.

There is considerable political pressure on Mr Byers to block the takeover which critics claim would give Rupert Murdoch, who controls 40 per cent of BSkyB, an unfair advantage in negotiating broadcasting rights to football matches.

But the government is also anxious not to alienate Mr Murdoch who attacked the decision to refer the bid to the MMC as politically motivated. City analysts were surprised by the suggestion than MMC had in effect recommended the bid be blocked.

Euro will earn no credit at the 'old money' pub

By Sathnam Sanghera in London

"One pint costs two pounds and six shillings, a father proudly informs his uninterested five-year-old son as he stands at the bar at the King's Head. "That's how we used to pay for things in the old days. There were 12 pennies to the shilling and 20 shillings to the pound."

Twenty-eight years after the switch to a decimal sterling, with 100 pennies to the pound, Dan Crawford, the landlord at the King's Head Theatre pub in Islington, London, continues to insist on working in tanners, bobs, ha'pennies and threepenny bits – or six old pennies, one shilling, half an old penny and three old pennies.

The clock may have started ticking for the introduction of the euro but Mr Crawford is still coping with the changeover from old pennies to decimal pence. Many of the old coins dropped in the early 1970s were larger and heavier than any now in circulation. Even the daily accounts and cashing up in the pub are done using the old system.

"Some pensioners committed suicide after the change to decimalisation," says Mr Crawford. "If you are 80 years old, it can have a deep psychological effect if you suddenly don't know how much money you have in your hand. I can see it happening again if the euro is introduced. There was considerable emotion attached to the pre-decimal currency, and there is even more attached to the pound."

After the change to decimal sterling in 1971, some shopkeepers carried on demanding old money. In a couple of cases, bus conductors ejected passengers who dared to give them the new money. Mr Crawford is the last fighter in the battle against decimalisation.

Richard Lobel, the founder of Coincraft, a London-based coin dealer, says: "Britain's pre-decimal currency stretched back to Anglo-Saxon times and beyond and people were very attached to it. People still remember the pre-decimal currency with tremendous affection."

Mr Crawford agrees: "I admit that my cause isn't the most important in the world, but the old currency had an amazing heritage which we have now lost. People are still very fond of it."

Like the changeover plan for the euro, when the time came for decimalising sterling the government launched a campaign to prepare the country for the change. The Decimal Currency Board was charged with supervising the switchover which eventually cost the Treasury between £100m and £150m ($161m and $241.5m). The board's verdict in its final report in December 1971, after it had completed one of the most intensive publicity campaigns ever directed, said that the changeover had been "smooth". But in 1972 the National Consumer Protection Society concluded that it had been a year of "confusion, dissatisfaction, incredible price rises and trial for old people."

Similar fears are being raised about the changeover to the euro. "Some older people will find a currency change very difficult," says a spokesman for Age Concern. "Older people are likely to remember the inflation that they consider was caused when the UK went decimal. It would be helpful if the government could announce any action it intends to take to ensure that retailers do not increase prices unnecessarily on the launch day."

If decimalisation proved difficult for some sections of the public, then the euro changeover will cause even more problems, says Kenneth Porter, senior manager at Deloitte Consulting. "Decimalisation was an easier change for several reasons. The overall value of £1 stayed the same and no notes changed."

In the meantime, the King's Head Theatre pub is bracing itself for another battle. "Nobody has, as yet, put a gun to my head to make me convert, but we are obliged to have dual pricing," adds Mr Crawford. "I suppose that we might have to have triple pricing if we lose the pound. It would be far easier if they just divided the euro into shillings and pennies."

NEWS DIGEST

GENETICALLY MODIFIED PRODUCTS

Fast food restaurants will have to name ingredients

Pizza restaurants and other fast food outlets will have to tell customers if their takeaways contain genetically modified products, under new rules to be announced by the government. Jeff Rooker, food safety minister, will also announce that companies will be liable to fines of up to £5,000 ($8,050) if they fail to declare GM ingredients.

Mr Rooker's initiative on GM food labelling is the latest move by the government to allay public fears on the issue, and will apply to all areas of the catering industry. All restaurant menus will have to indicate clearly if a meal includes GM products. Labelling rules already apply to food sold in shops. Mr Rooker has consulted the catering industry widely to develop a set of rules which would apply equally to takeaway outlets. The recent wave of publicity about GM foods has prompted many supermarkets and restaurants to announce that they would stop selling modified products. **George Parker, London**

EDUCATION

School to adopt baccalaureate

Sevenoaks, one of the country's famous private schools, is to abandon the A-level examination system next year in favour of the International Baccalaureate. The move is the first by a school from the elite Headmasters' and Headmistresses' Conference which includes many of the most famous UK schools, including Eton and Harrow. The government is already preparing to unveil plans for radical reform of the A-level, the results of which decide students' applications for university entrance.

If other top schools follow suit, then the government's plans, which are due to take effect from September 2000, could be undermined. Winchester College, which topped last year's FT league table of schools, is considering a switch to the International Baccalaureate, amid fears that the government's plans will reduce the academic rigour of the traditional A-level. Tommy Cookson, headmaster of Sevenoaks, which was founded in 1418, said: "The International Baccalaureate has won a well-deserved reputation for intellectual rigour, coupled with breadth of study, at universities in Britain, on the [European] continent, and in America's Ivy League." **Simon Targett, London**

COMPUTER READINESS FOR 2000

Institutions are on 'red list'

Twelve large financial institutions are still at serious risk of failing to bring their computer systems up to scratch to deal with the millennium computer "bomb". They are on a "red list" drawn up by the Financial Services Authority, the UK financial watchdog, which has been leading efforts to make sure that banks and insurers are ready for the year 2000, when some systems might have problems with the double 00 date. Michael Foot, head of financial supervision at the FSA, told a London conference yesterday: "In the last resort and where it is apparent there is no better way to protect depositors, investors, policy holders or the integrity of markets, we will take action to restrict a firm's business or in extreme cases to remove its authorisation altogether." **George Graham, London**

ANIMAL RIGHTS CAMPAIGN

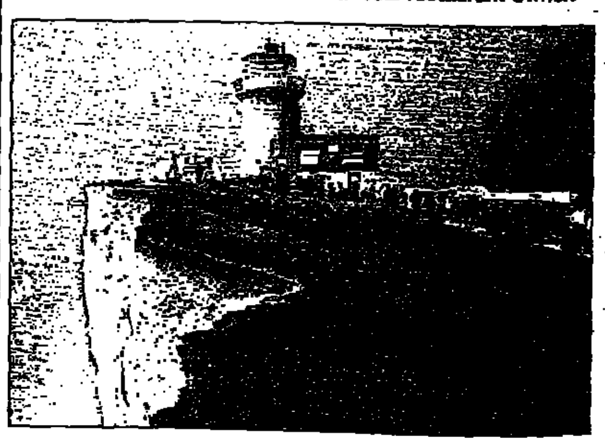
Activist jailed for seven years

An animal rights campaigner was yesterday jailed for seven years for conspiring to cause explosions. A court in Northampton, central England, heard that Anthony Humphries, 33, an electrician, had planned to firebomb drug companies involved in tests on animals. The judge told Mr Humphries, who denied conspiracy to cause an explosion and possession of an explosive substance, that his offences were so serious that prison was the only option.

CLIFFTOP EROSION

Lighthouse dragged from edge

An 850-tonne lighthouse was dragged back from a crumbling cliff edge near Beachy Head in southern England yesterday two months after part of a nearby chalk cliff collapsed into the sea in the biggest UK coastal erosion incident for many years. The Belle Tout Lighthouse is one of several buildings under threat as the coastline gives way to advancing tides. Increasing erosion is thought to be partly caused by global warming. The redundant granite lighthouse, built in 1834, was barely five metres from the edge of the 100m-high cliffs when it was pulled back more than 15 metres on lubricated steel rails at the rate of a metre an hour (picture). The building, last used as a lighthouse in 1902, is now home to a local restaurant owner.



Press Association

Who's the dot in .com?

Everyone's more than a little familiar with ".com." But how about the company behind the dot? At Sun, everything we make, everything we do (and have always done) is about launching companies into the Network Age.

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Our scalable enterprise servers power the Net from the workgroup to the data center. And as information expands on the Net, our open network storage systems expand along with it.

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Suffice it to say, there's a lot going on behind the dot in .com.

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Sun microsystems

BILL GATES ON BUSINESS

Speed gives life to digital nervous system

The pace of change in business grows ever faster. In response, says Bill Gates, companies must exploit the untapped potential of the computers they already own. This is the first of four days of extracts the FT is publishing from his new book *Business @ the Speed of Thought: Using a Digital Nervous System*

Business is going to change more in the next 10 years than it has in the past 50. If the 1980s were about quality and the 1990s were about re-engineering, then the 2000s will be about velocity. About how quickly the nature of business will change. About how quickly business itself will be transacted. Quality improvements and business process improvements will occur far faster.

When the increase in velocity of business is great enough, the very nature of business changes. A manufacturer or retailer that responds to changes in sales in hours instead of weeks is no longer at heart a product company but a service company that has a product offering.

These changes will occur because of a disarmingly simple idea: the flow of digital information. We've been in the Information Age for about 30 years, but because most of the information moving among businesses has remained in paper form, the process of buyers finding sellers remains unchanged.

Very few companies are using digital technology for new processes that radically improve how they function, give them the full benefit of all their employees' capabilities, and give them the speed of response they will need to compete in the emerging high-speed business world.

Most companies don't realise that the tools to accomplish these changes are now available to everyone. Though at heart most business problems are information problems, almost no one is using information well.

Too many senior managers seem to take the absence of timely information as a given. People have lived for so long without information at their fingertips that they don't realise what they're missing.

Even companies that have made significant investments in information technology are not getting the results they could be. What's interesting is that the gap is not the result of a lack of technology spending. In fact, most companies have invested in the basic building blocks: PCs for productivity applications; networks and electronic mail (e-mail) for communications; basic business applications.

The typical company has made 80 per cent of the investment in the technology that can give it a healthy flow of information, yet is typically getting only 20 per cent of the benefits now possible.

The job most companies are doing with information today would have been fine several years ago. Getting rich information was prohibitively expensive, and the tools for analysing and disseminating it weren't available in the 1980s and even the early 1990s. But here on the edge of the 21st century, the tools and connectivity of the digital age give us a way to easily obtain, share and act on information in new and remarkable ways.

Already, the new work style is changing business processes at Microsoft and other companies. Replacing paper processes with collaborative digital processes has cut weeks out of our budgeting and other operational processes. Groups are using electronic tools to act together almost as fast as a single person could act, but with the insights of the entire team. Highly motivated teams are getting the benefit of everyone's thinking.

With faster access to information about our sales, our partner activities and, most importantly, our customers, we are able to react faster to problems and opportunities. Other pioneering companies going digital are achieving similar breakthroughs.

We have infused our organisation with a new level of electronic-based intelligence. I'm not talking about anything metaphysical or a weird episode from *Star Trek*. But it is something new and important.

To function in the digital age, we have developed a new digital infrastructure. It's like the human nervous system. The biological nervous system triggers your reflexes so that you can react quickly to danger or need. It gives you the information you need as you ponder issues and make choices. You're alert to the most important things, and your nervous system blocks out information that isn't important.

Companies need to have that same kind of nervous system: the ability to run smoothly and efficiently; to respond quickly to emergencies and opportunities; to quickly get valuable information to the people in the company who need it; the ability to make decisions quickly and interact with customers.

That is what I mean by the concept of "the digital nervous system". A digital nervous system is the corporate, digital equivalent of the human nervous system, providing a well-integrated flow of information to the right part of the organisation at the right time. A digital nervous system consists of the digital processes that enable a company to perceive and to react to its environment, to sense competitor challenges and customer needs, and to organise timely responses. A digital nervous system requires a combination of hardware and software.

It's distinguished from a mere network of computers by the accuracy, immediacy and richness of the information it brings to knowledge workers and the *insight* and *collaboration* made possible by the information.

A digital nervous system will let you do business at the speed of thought – the key to success in the 21st century.

The force of facts

I have a simple but strong belief. The most meaningful way to differentiate your company from your competition, the best way to put distance between you and the crowd, is to do an outstanding job with information. How you gather, manage and use information will determine whether you win or lose.

I can anticipate your reaction. No, it's efficient processes! It's quality! It's creating brand recognition and going after market share! It's getting close to customers!

Success, of course, depends on all of these things. Nobody can help you if your processes limp along, if you aren't vigilant about quality, if you don't work hard to establish your brand, if your customer service is poor. A bad strategy will fail no matter how good your information is. Lame execution will stymie a good strategy. If you do enough things poorly, you'll go out of business.

But no matter whatever else you have going for you today – smart employees, excellent products, customer goodwill, cash in the bank – you need a fast flow of good information to streamline processes, raise quality, and improve business execution.

See if you have the information to answer these questions.

What do customers think about your products? What problems do they want you to fix? What new features do they want you to add? What problems are your distributors and resellers running into as they sell your products or work with you?

Where are your competitors winning business away from you, and why? Will changing customer demands force you to develop new capabilities? What new markets are emerging that you should enter?

A digital nervous system won't guarantee you the right answers to these questions. It will free you from tons of old paper processes so that you'll have the time to think about the questions. It will give you data to jump-start your thinking about them, putting the information out there so that you can see the trends coming at you.

And a digital nervous system will make it possible for facts and ideas to quickly surface from down in your organisation, from the people who have information about these questions and, most likely, many of the answers.

To do information work, people in the company have to have ready access to information. Until recently, though, we've been conditioned to believe that "the numbers" should be reserved for the most senior executives.

A few executives might still want to hold information close in the interests of confidentiality, but for the most part access to information has been restricted simply because it used to be so hard to get. It took time, effort and money to move it around.

It was so expensive to pull data out of a mainframe, and it took so much labour to try to correlate the data, that you had to be at least a vice-president to order up the work. Even then, the information was sometimes so inconsistent or out of date that you'd have people from different departments showing up at high-level meetings with different data.

On today's computer networks you can retrieve and present data easily and inexpensively. You can dive into the data to the lowest level of detail and pivot it to see it in different dimensions. You can exchange information and ideas with other people.

You can integrate the ideas and work of multiple people or teams to produce a well thought-out and co-ordinated result. We need to break out of the mind-set that getting information and moving information around is difficult and expensive. It's only basic common sense to make all of your company's data – everything from the latest sales numbers to the company pension plan – just a few clicks away for everyone who can use it.

A company's middle managers and line employees, not only its high-level executives, need to see business data. It's important for me as a chief executive to understand how the company is doing across regions or product lines or customer segments, and I take pride in staying on top of those things.

However, it's the middle managers in every company who need to understand where their profits and losses lie, what marketing programmes are working or not, and what expenses are in line or out of whack. These employees shouldn't have to wait for upper management to bring information to them. Companies should spend less time protecting financial data from employees and more time teaching them to analyse and act on it.

Of course, every company is going to draw the line on information access somewhere. Every company keeps salaries confidential. In general, though, I believe in a very open policy on information availability.

A sign of a good digital nervous system is middle managers empowered by the flow of specific actionable information. They should be seeing sales numbers, expense breakdowns, vendor and contractor costs, and the status of projects online, in a form that invites analysis as well as co-ordination with other people.

The systems should notify them of unusual developments according to criteria they set, for example, if an expense item is out of line. This way they don't need to monitor normal expense activity. These capabilities are available at a few companies, but I'm continually surprised by how few companies use information technology to keep their line managers wellinformed and to avoid routine review.

I'm amazed by the tortuous path that critical information often takes through many big companies. At McDonald's, until recently, sales data had to be manually "touched" several times before it made its way to the people who needed it. Today, McDonald's is well on the way to installing a new information system that uses PCs and web technologies to tally sales at all its restaurants in real time. As soon as you order two Happy Meals, a McDonald's marketing manager will know. Rather than superficial or anecdotal data, the marketer will have hard, factual data for tracking trends.

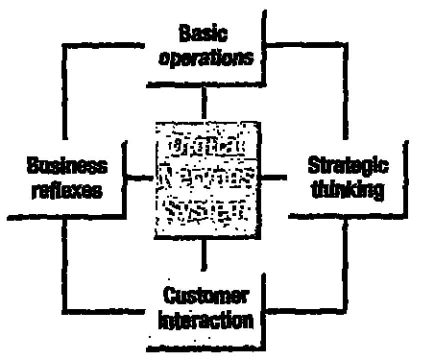
What I'm describing here is a new level of information analysis that enables knowledge workers to turn passive data into active information. A digital nervous system enables a company to do information work with far more efficiency, depth and creativity.

To begin creating a digital nervous system, you should first develop an ideal picture of the information you need to run your business and to understand your markets and your competitors. Think hard about the facts that are actionable for your company. Develop a list of the questions to which the answers would change your actions. Then demand that your information systems provide those answers. If your current system won't, you need to develop one that will – one or more of your competitors will.

You know you have built an excellent digital nervous system when information flows through your organisation as quickly and naturally as thought in a human being, and when you can use technology to marshal and co-ordinate teams of people as quickly as you can focus an individual on an issue. It's business at the speed of thought.

Anatomy of the Digital Nervous System

A Digital Nervous System comprises the digital processes that closely link every aspect of a company's thoughts and actions. Basic operations such as finance and production, plus feedback from customers, are electronically accessible to a company's knowledge workers, who use digital tools to quickly adapt and respond. The immediate availability of accurate information changes strategic thinking from a separate, stand-alone activity to an ongoing process integrated with regular business activities.



How to make digital information flow an intrinsic part of your company

For knowledge work

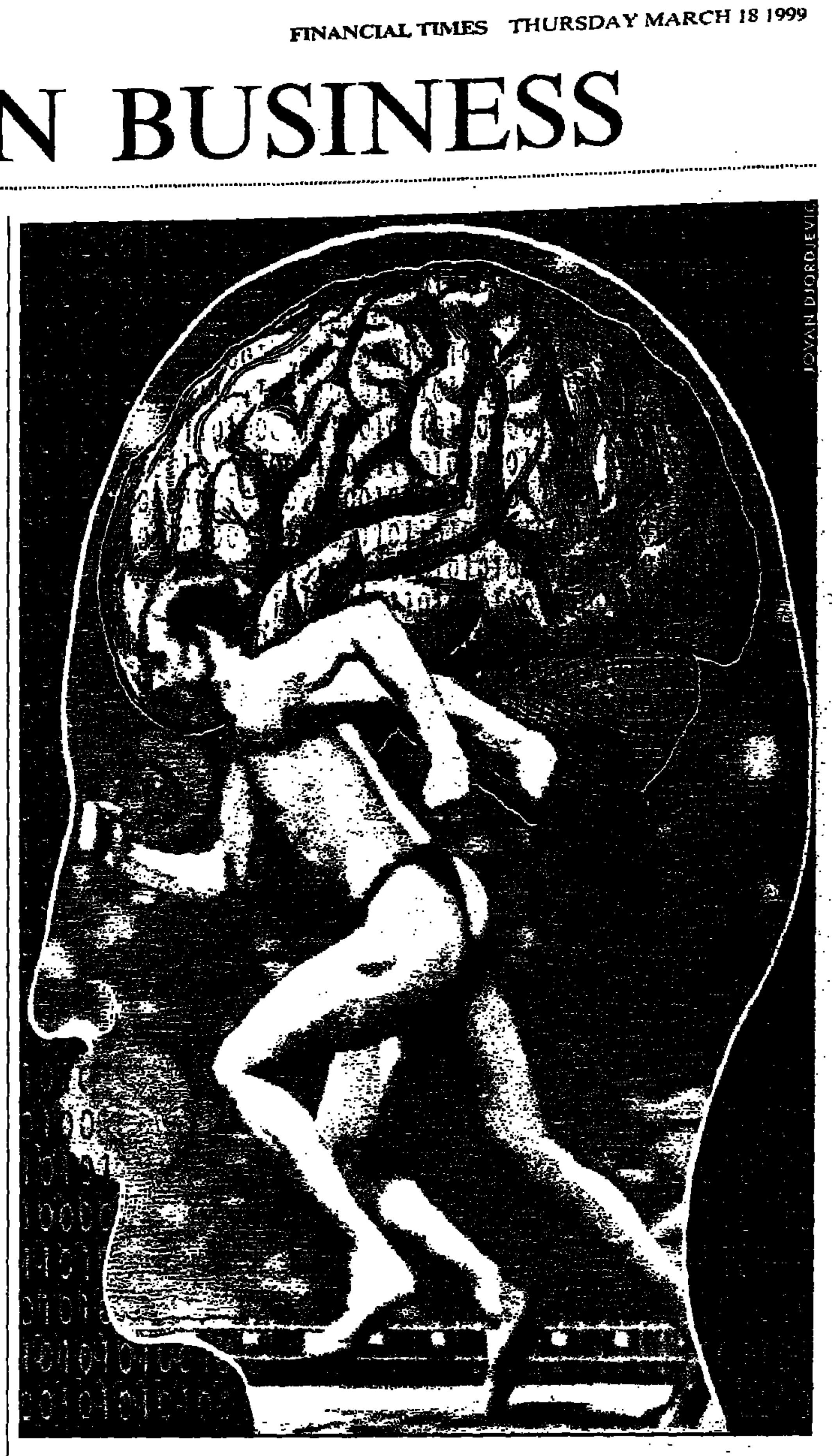
1) Insist that communication flows through the organisation over e-mail so that you can act on news with reflex-like speed.
2) Study sales data online to find patterns and share insights easily. Understand overall trends and personalise service for individual customers.
3) Use PCs for business analysis, and shift knowledge workers into high-level thinking work about products, services, and profitability.
4) Use digital tools to create cross-departmental virtual teams that can share knowledge and build on each other's ideas in real time, worldwide. Use digital systems to capture corporate history for use by anyone.
5) Convert every paper process to a digital process, eliminating administrative bottlenecks and freeing knowledge workers for more important tasks.

For business operations

6) Use digital tools to eliminate single-task jobs or change them into value-added jobs that use the skills of a knowledge worker.
7) Create a digital feedback loop to improve the efficiency of physical processes and improve the quality of the products and services created. Every employee should be able to easily track all the important metrics.
8) Use digital systems to direct customer complaints immediately to the people who can improve a product or service.
9) Use digital communications to redefine the nature of your business and the boundaries around your business. Become larger and more substantial or smaller and more intimate as the customer situation warrants.

For commerce

10) Trade information for time. Cut cycle time by using digital transactions with all partners, transforming every business process into just-in-time delivery.
11) Use digital delivery of sales and service to eliminate the middleman from customer transactions. If you're a middleman, use digital tools to add value to transactions.
12) Use digital tools to help customers solve problems for themselves, and reserve personal contact to respond to complex, high-value customer needs.



Ride the inflection rocket

Ten trends will transform business, says Bill Gates. He explains how to prepare for them

Not long ago I had a talk with the board of directors of a German financial institution. These were experienced business people. The youngest was probably 55, and many were in their 60s.

They'd seen a lot of changes in banking, and they'd lived through a lot of technology changes, too. The bank had not yet, though, embraced the new internet technologies. On the day of my talk they'd heard a series of presentations from Microsoft employees. When I walked in, they were all sitting with their arms folded, looking unhappy.

"Okay," I said. "What's the problem?" One of them replied, "We think that banking is in the process of changing completely, and we're getting technical presentations from people here at Microsoft – more technical than we're used to."

He took off his glasses and rubbed his eyes. "It's good that you're just going to make all of your products better, but what is the overall plan? To view you as a long-term vendor, we need you to give us a vision of the future."

I was thinking, Oh boy. We've spent eight hours talking to this bank and we haven't answered the customer's central concerns. Now I've got to do it off the top of my head...

I went to the whiteboard. "What I'm about to write down are 10 inflection points that I think will fundamentally alter all industries," I told the bankers.

"I'm going to ask you whether you believe each of them will happen. Never mind for now how quickly. If you don't believe they will, then you shouldn't change what you're doing with technology. But if you believe they're going to happen, and it's only a matter of time, then you should start to prepare for that change today."

Do you believe that in the future people at work will use computers every day for most of their jobs? I asked. Today a lot of people use computers occasionally, but many knowledge workers may use their PCs only a few times a day. They may even go a couple of days without using PCs.

Do you believe that today's paperwork will be replaced by more efficient digital administrative processes? They did. Their only concern was how to make the transition from a paper to a digital world.

Do you believe that one day most households will have computers? I asked. In the US today, about half the households have PCs. The percentage is a bit higher in some countries but much lower in most. Do you believe that one day computers will be as common in homes as telephones or TVs? They did.

Do you believe that one day most businesses and most households will have high-speed connections to the World Wide Web? I asked. They nodded.

Do you believe e-mail will become as common a method of communication among people in business and homes as the telephone or paper mail is today? Currently not everybody uses e-mail even if they have a computer. Would that situation change? They agreed it would.

Now, if most people have computers and use them every day, I asked, do you believe that most information will start arriving in digital form? Do you think your consumer bills will arrive electronically? Do you think you'll be booking your travel arrangements over the internet? They agreed that these changes were on their way.

Do you think digital appliances will become common? I asked. Do you believe that digital devices for photography, video, TV, and phones will become ubiquitous? Do you expect that other new digital devices will proliferate around the home and be connected to the web? Only a matter of time, they agreed.

Do you foresee a time, I asked, when notebook computers become computer notebooks? I described what I meant, a computer notebook being a new device that enables you to take notes as you do today with a notepad and lets you carry with you all the personal and professional data you need. This will probably be the last inflection point to occur.

"The great thing about a computer notebook," I said, "is that no matter how much you stuff into it, it doesn't get bigger or heavier." They laughed. There was a 30-second conversation in German before one said, "We thought you said something funny, and then we realised you said something profound."

"Am I wasting your time?" I asked. "Do you believe these changes are ever going to happen?" They had a short conversation in German. "We hired a management consultant, and we've been going through the same discussion at home, and yes, we believe it's going to happen. It's going to completely change the nature of banking."

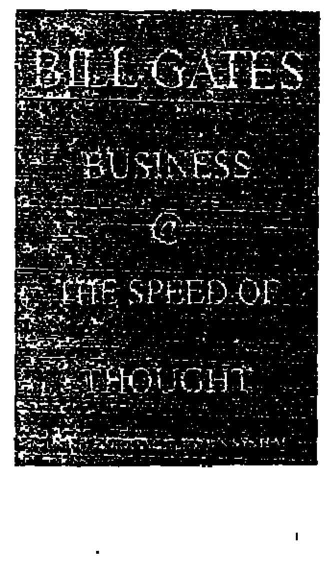
"When is it going to happen?" I asked. "What do you think?" They had a longer and more animated discussion in German. They came back and said, We didn't expect to make this decision here, but we have. First we were going to tell you 20 years, but then we decided that inside of 10 years these inflection points will either have arrived or be very imminent. Banking will be different.

To prepare for that change, I told them, you need to make digital information flow pervasive in your organisation. I talked briefly about needing to take advantage of existing digital tools they already have for their knowledge workers; about digitally linking their knowledge systems with business operations systems and ultimately creating a new infrastructure around the PC and internet technologies.

If you do these things, I told them, you'll be prepared for the three fundamental business shifts that will occur as the result of all the digital inflection points:

1. Most transactions between business and consumers, business and business, and consumers and government will become self-service digital transactions. Intermediaries will evolve to add value or perish.
2. Customer service will become the primary value-added function in every business. Human involvement in service will shift from routine, low-value tasks to a high-value, personal consultancy on important issues, problems or desires for the customer.
3. The pace of transactions and the need for more personalised attention to customers will drive companies to adopt digital processes internally if they have not adopted them already.

Life's going to be pretty exciting as these changes come about, I concluded, and within a decade it's likely that most of them will occur. This world will be radically different from the one we live in today.



Business @ the Speed of Thought: Using a Digital Nervous System
by Bill Gates with Collins Hemingway
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Other extracts in this series will appear on March 19 (The day Microsoft 'got' the internet), 20 (Home is where the internet is) and 22 (Coping with an era of change). An interview with Bill Gates by Louise Kehoe appeared on March 17: her reflections on how the future is shaping up for Microsoft and for the computer industry as a whole will appear on March 23. Extracts © William H. Gates III 1999

Boyner: 'To remain a household name, it is important that the public should own you'

MANAGEMENT BOYNER HOLDING

Defying preconceptions

Leyla Boulton meets a Turkish businesswoman preparing to take the family-owned retail group public

Umit Boyner, the chief financial officer of Boyner Holding, Turkey's biggest non-food retail group, is used to surprising most of the foreigners she meets.

"They think Turkey is a developing country and there can't be that many women around in business," she says. "We may not have day-care centres or six-month maternity leave, but I would disagree with anybody who said that Turkish business is a man's world."

While chauvinism is rife in politics, as well as small business and provincial life, female executives play an important role in Turkish companies, particularly in Istanbul, the country's biggest and most modern city.

Many businesses are still family-owned, creating opportunities for women who are part of the family through birth or marriage.

Moreover, after 75 years of western-oriented secularism, Turkey's high level of education qualifies many urban women for senior positions, even if they are not related to a company's owners.

Even so, Mrs Boyner, a 35-year-old mother of two, is no ordinary executive. She and her husband, Cem – who is chief executive of the family-owned Boyner group – met at kick-boxing class.

Having participated in the rise and fall of her husband's reformist New Democracy political party, she still feels a "calling" for civil action to shake up the moribund world of Turkish politics.

Her business aims are no less ambitious. Foreign nervousness about political instability and double-digit inflation have helped Turkish companies by keeping outside competition at bay. But in a fast-growing market of 60m consumers, that luxury is unlikely to last.

"For years we have been bracing ourselves for competition with things like best-practice analysis and benchmarking," says Mrs Boyner, who studied economics and political science at the University of Rochester in the US. "But the fact there is no major competition at this point does not mean it won't come in."

Where a cocooned domestic market may have been an advantage in the past, transparency and international competitiveness are becoming the watchwords for Boyner as, like many Turkish companies, it seeks outside capital to develop.

"I don't know of too many retail companies in the world that have stayed private and grown significantly," says Mrs Boyner. "[Going public] is not just a capital requirement but a guarantee you're in the market for the long term. To remain a household name, it is important that the public should own you."

'I would disagree with anybody who said that Turkish business is a man's world'

Yesterday she began a roadshow in London to discuss last year's results and future plans with foreign investors in the group's two listed companies: Carsi, the department stores, and Altinyildiz ("Goldstar"), a manufacturer and retailer of woollen textiles.

As a prelude to taking the rest of the \$600m (£375m) group – including Beymen, an upmarket clothing retailer, and the parent Boyner Holding itself – public, the management intends to publish its first consolidated, inflation-adjusted accounts later this year.

Mrs Boyner says the group is also looking to make two acquisitions abroad. First, it wants to buy a US production facility with a customer network that would enable it to sell more of its Turkish-produced wool textiles to US clothes manufacturers. It currently supplies material to household names ranging from Ralph Lauren to Ann Taylor. Second, Boyner is shopping around for a European womenswear label under which it would produce clothing in Turkey, using its textiles and technology.

Today, 70 per cent of the group's sales are in retail – a growth area in Turkey, where only 2 per cent of sales are in department stores compared with eight per cent for western Europe. The rest of the group's sales are in textile production.

At home, Boyner is considering expanding into food – probably with a foreign retailer "so we don't have to reinvent the wheel or build up expertise over time to understand how you buy perishable goods" – and possibly into healthcare.

In so doing, Boyner would capitalise not just on its retailing expertise but on the profiles it has built up on 1.5m customers through its Advantage credit card.

Yet one senses that even turning Boyner into a global company would not be enough for Mrs Boyner, whose first name means "hope". When her children are older, she would be keen to return to the task of replacing Turkey's political leaders, widely seen as ineffectual and averse to change.

"As a civil society we are not aware of our rights and responsibilities," she says. "There's a certain lethargy, which is changing, but not fast enough. There's so much we have to do and we have more power than we think we do."

TECHNOLOGY WORTH WATCHING

Colourful gene for silk worms

Researchers in Japan have used genetic engineering to make silk worms produce coloured silk, *writes Vanessa Houlder*. The scientists at the Kyoto Institute of Technology infected the silkworm larvae with a genetically engineered insect virus, according to the latest issue of the journal Genes & Development. This carried a silk protein that was altered to include the gene encoding the green fluorescent protein from jellyfish.

After the virus infected the larval cells, it embedded itself into the silkworm's DNA, replacing one of the natural genes with the altered one. When the larvae spun silk, it emerged as green fluorescent fibres.

The research could lead to silk worms being used to produce industrially important proteins, such as spidroin, the spider silk protein used in fibres for bullet-proof vests and parachutes.

Kyoto Institute of Technology: Japan, 81757247776; e-mail hmori@ipc.kit.ac.jp

Shuttle guide to flu treatment

Research carried out on a space shuttle mission has provided the foundation for a new influenza treatment. The drugs, called neuraminidase inhibitors, promise to reduce the severity and duration of flu, and could even stop symptoms developing.

One of the neuraminidase inhibitors was developed following research conducted by Nasa in partnership with the University of Alabama at Birmingham. It is now being developed by Johnson & Johnson.

The drug blocks an enzyme associated with the spread of flu, making it effective against a wide variety of flu strains.

The drug was designed by drawing up a molecular "map" of the flu virus using space-grown protein crystals which are larger and better ordered than those grown on earth.

Nasa: US, tel 2565446535; e-mail steve.roy@msfc.nasa.gov

Complex solution for composites

Composite materials, which are reinforced with glass fibres, are useful because they are lightweight and tailored to meet specific needs. But it is difficult to make complex shapes with them because of the difficulty of joining the materials. The Warwick Manufacturing Group, part of the University of Warwick, has developed a technique that eliminates the need to use corner joints for complex shapes.

The technique uses ultraviolet light, rather than heat, to cure the resin-coated fibres.

The technique could have applications in the car industry where composites could be used instead of steel and aluminium, and in concrete as a substitute for steel reinforcement.

Warwick Manufacturing Group: UK, tel (0)1203 523784; e-mail g.f.smith@warwick.ac.uk

Tears of hope for Aids sufferers

US researchers have identified proteins in tears and saliva that act as powerful anti-HIV agents.

The finding, published in the Proceedings of the National Academy of Sciences, could open the way to a new class of anti-Aids drugs which would be well tolerated by the body and cause few side effects.

Two proteins – lysozyme and ribonuclease – appear to act together to inhibit the HIV virus. The researchers from the New York University School of Medicine and elsewhere believe the lysozyme may be breaking down the outer membrane of the virus while the ribonucleases affects viral replication.

The study is the result of a five-year search for the powerful anti-Aids agent.

NYU School of Medicine: US, tel 2122635488; e-mail Marjorie.Shaffer@med.nyu.edu

A train was used in the S African anti-Aids campaign Reuters

IT BUSINESS AND THE INTERNET

Brave few take plunge into online waters

Some European companies are embracing the technological revolution, but too many are ignoring it, writes **Christopher Price**

europe.com

Is corporate Europe ready to embrace the internet and electronic commerce?

In recent weeks, this series has looked at five European companies that have placed the internet at the forefront of their corporate activities.

Some, such as TNT, the Amsterdam-based logistics group, have reacted to technology-led competition from the likes of Federal Express and UPS. Lufthansa, the German airline, has quickly aped the internet developments of US carriers, such as United Airlines.

Yet in both cases, the experience has seen the development of internet initiatives that have in some ways eclipsed their rivals. TNT, for example, is introducing a service that will enable its customers to customise their web link to the carrier, enabling seamless contact between the two organisations.

Lufthansa has expanded its online ticketing system to cover more than 700 airlines. Customers can book tickets and receive flight information, advice and support without using the German airline at all. Some 5 per cent of Lufthansa's total ticket sales are now sold on behalf of other airlines.

Both these examples illustrate the innovation unleashed by the new medium. The executives interviewed for the series testified to the spirit of invention that the internet fostered in their organisation. Also, the developments have been underpinned by the rapidly growing software and IT services business in the continent.

Not all the initiatives have been in response to the threat from the US. Dixons, the UK electrical retailer, has reversed the trend, launching a free internet service and quickly becoming the biggest provider of such services in the country, overtaking America Online.

Electrolux, the world's biggest electrical appliance supplier, has moved to streamline its sea-carrying operations by making its Distrilux subsidiary completely internet-based.

'The internet . . . is being discussed at board level throughout Europe'

However, all five companies had a legacy of technological experience, which meant the move towards an internet-based strategy was perhaps not such a great leap.

TNT and Electrolux, for example, were already users of Electronic Data Interchange, the dedicated online electronic communications system. Dixons, meanwhile, is Britain's biggest retailer of personal computers.

This not only gave the companies an advantage in being receptive to technological developments, it also put in place systems on which to develop sophisticated internet initiatives.

"Companies can get pulled into spending a lot of money in an attempt to catch up with technology," says Patricia Seybold, a Boston-based IT consultant and author of *Customers.com*, which profiles US companies pursuing internet-led strategies. "The important point is to spend it in the right areas – look for where the biggest area of pain is for your customers as a starting point."

She believes Europe is less than a year behind the US in its embrace of e-commerce, and says the gap is closing. "The internet, with all its threats and opportunities, is now being discussed at board level throughout Europe. It is at that point where executives are interested in the internet, but not yet compelled," says Ms Seybold.

She believes the big catalyst for e-commerce in Europe will come when businesses begin demanding it of suppliers, and customers of their vendors – a situation that is beginning to emerge.


BROMLEY

This view is supported by market researchers, such as Forrester Research of the US, which forecasts that e-commerce in Europe will grow to \$64.4bn in 2001 from \$1.2bn in 1998.

Yet not all observers paint such a rosy picture. The UK Institute of Directors warned in a study last week that Europe in general and the UK in particular risked losing business to the US because of a lack of awareness of new technology.

This is particularly worrying against a background of European deregulation and the single currency, both of which will drive the rise of e-commerce in the region, the institute said.

To the question of whether other companies using the internet posed a serious threat to one's business, 14 per cent of US companies agreed, according to the study. For the UK, the figure was just 2 per cent, while France was closer to zero than 1 per cent. Germany scored 17 per cent, while Norway gave the biggest affirmation at 23 per cent.

Only 8 per cent of French companies thought business expansion in their own country was very important, compared with 20 per cent on average across Europe. The figure for the US was 38 per cent. Just over a third of European businesses considered focusing on high-value customers very important, compared with 62 per cent in the US.

What this report reflects, as does the europe.com series, is the wide variety of responses by corporate Europe to the unfolding technological revolution. Some are standing on the beach, others are dipping a toe in, some are taking the plunge.

But as Ernst & Young, the management consultancy, points out in its recent report on the subject, the tide of European e-commerce is rising quickly:

- Consumers are better informed and demanding a greater variety of channels to buy goods and services in an economy that is becoming increasingly connected, spurred on by the rapidly maturing internet and the *onset of digital television.*
- E-commerce is giving consumers scope to buy what they want, when they want and to pay and take delivery in a way that suits them.
- The value of a company's physical assets are giving way to the intangible value inherent in its brands, research and development, *consumer* relationships and market knowledge.
- The shopping experience will change – consumers will buy many everyday items through digital channels and physical channels will have to become more lifestyle oriented.

INFORMATION TECHNOLOGY
● The FT's review of Information Technology appears on the first Wednesday of each month

These points could equally be applied to business-to-business e-commerce. Ernst & Young says that those companies wishing to take part in the new digital marketplace must get connected to suppliers and customers, and then use this to create greater loyalty. They should also build up their intangible assets, develop alliances and exploit knowledge of their customers.

The companies in our series are in the vanguard. They have shown that investments in the new economy may not come cheap, but can quickly begin to pay dividends. Many more companies across Europe are already using technology not only to cut costs and increase productivity, but also to react more quickly to changes in their market.

Other companies are adopting a wait-and-see policy. Some are not even watching. They risk seeing the world pass them by.

This concludes the series. The companies featured were Electrolux, RS Components, Lufthansa, Dixons and TNT.

CINEMA

Pitch-black comedy verges on nightmare

This is Existentialism taken beyond the limit, decides **Nigel Andrews**

A head that resembles Gouda cheese scarred with features: Philippe Nahon in Gaspar Noe's feelbad debut feature, 'Seul Contre Tous'

Great beginnings are dangerous things. The Old Testament is mostly downhill after its first sentence. Nothing in Tolstoy's *Anna Karenina* surpasses his sly, searing opening maxim. And *Seul Contre Tous*, a French film already festooned with awards and notoriety, starts

SEUL CONTRE TOUS
Gaspar Noe

WAKING NED
Kirk Jones

APRILE
Nanni Moretti

ARLINGTON ROAD
Mark Pellington

A NIGHT AT THE ROXBURY
John Fortenberry

by having a fiftyish man's preceding life gabbled to us in a few, virtuoso minutes of rapid-fire still photographs plus overvoice.

Though that voice speaks in the third person, we soon realise it is the man's own. Butcher, ex-convict and nihilist, is played by an actor, Philippe Nahon, whose head resembles a Gouda cheese scarred with features and who barely speaks except in offscreen hate monologues. Motor-mouthing about everything from France to "faggots", and flailing the present with the memory of a death-camp-martyred Communist father, his polluted streams of consciousness form the main part of the soundtrack. The other motif is sudden gunshots, loud and sourceless, accompanied by a jump-cutting camera.

This is not the film to see if you cannot get into *Patch Adams*. It is too early to say whether or not Gaspar Noe's feelbad debut feature is a good film, we may need another 100 years. (Or again, it is like asking whether the scaffolding that falls on you from a great height in the street is good or not. Powerful, yes; stoutly built; and giving an excellent impression of implacable destiny.)

Even the film's admirers find it tough to defend. How should we react when the hero punches his wife in the stomach till she miscarries? Or when he impassively watches a jiggling hard-porn movie in a cinema (our censor has tastefully misted the images). Or when he takes his daughter to a hotel and, in a multiple-choice ending, either has sex with her or shoots her through the throat? (No misting on the lingering shots of a neck jerking out blood.)

For my two *sous'* worth this is a black comedy – pitch-black – about the bad joke that Existentialism has become in the land, or the continent, or (why limit it?) the cosmos, of its birth. The godless freedom that was once a mid-century dream, a *cri de raison* for Sartre, Camus and company, is now a turn-of-millennium nightmare. Anything goes. Morality is a hawkers' market. And mad, bigoted people walk about with opinions and guns. Arm a taxi driver and you would get this hero. Noe's abattoir style of film-making, with its stun-gun soundtrack and bloody runnels of monologue, gives us the end of the world inside one man's head. The film is very nasty, very ugly, but possibly very educational.

★

Other movies, other good starts. *Waking Ned* begins with such a great joke – I shan't spoil and tell – that the rest seems minor fun with interludes for audience thumb-twiddling.

If someone in your village dies on learning that he/she has won the lottery, should you have him/her impersonated by another villager so that all can share the ill-gained loot? This is the plan in debut writer-director Kirk Jones's fictive hamlet of Tully More (pop. 49), a sleepy Irish hollow where chief schemers Jackie (Ian Bannen) and Michael (David Kelly) prance and plot, a Belch and Aguecheek *pour nos jours*.

Bluffs, dells and heathery valleys; wee timorous cottages, a mere smoke-puff away from the Disneyish; and two codgers whose schemes to cheat the Man from the Lottery include chicken dinners, corpse re-arrangement and nude bicycling, though not necessarily in that order.

I loved the exchange that went "He's never told a lie in his life", "Well, he's making up for it now." And there is a perfect comic set-up in the chapel, when Lottery Man enters during the funeral address for the actual dead man.

But should we not be a little more shocked than we are? Great black comedy, from Buñuel to Orton and indeed to Gaspar Noe, has us gasping even as we may giggle. But *Waking Ned* is so keen to be folksy-Irish – those pub scenes, those pipes whiffling away on the music track – that we are anaesthetised to atrocity even when it happens. Near the end a poor crippled woman is hurled over a cliff in a telephone booth. Granted, she may be a witch, but don't witches have rights? And at least she wasn't dispensing Irish Tourist Board charm.

★

For good, ingratiation-free comedy you need Italy's Nanni Moretti. Picture an El Greco saint with longsuffering hair, poetic eyes and a hooked nose so large that you could open a tin with it. Moretti is the opposite of Roberto *Life Is Beautiful* Benigni. Where RB is small, manic and sentimental, NM is tall, depressive and philosophical. In *Dear Diary* he walked or cycled around Italy, soliloquising about life, death, scenery and Pasolini. In *Aprile*, he crosscuts wryly between a summer of political protest and his wife's childbirth.

The new film is less inventive than the old, but that is small dispraise. Moretti doesn't have to "do", he "is". Although he writes and directs as well as acting, on screen he is funniest when doing least. When he fails completely at a task he is irresistible. After going out to film an anti-fascist rally in the rain, Moretti sighs in voice-over that all he got was "Umbrellas, umbrellas, umbrellas." (We see them.) He wants to shoot a big musical but cannot summon the money or energy. And at home he talks to the television, a common sign of 20th century desperation. "Respond! he yells at an evasive Silvio Berlusconi, one of this film's satiric targets.

Like Fellini's *8½*, *Aprile* is a film about not being able to make a film. The material never quite coheres – both the movie and the movies-within-the-movie – even when its consummation-shy author/hero actually manages to shoot footage. (Before his wife's baby-delivery he says, "I'm going to ask the doctors if I can watch. I hope they refuse".)

But structural incoherence becomes a sort of joy. It belongs with the letters to newspapers that Moretti writes but never sends, and the Hollywood films he instantly regrets seeing. This picture of a soul in everyday crisis, where each gesture is a variant on the helpless shrug, is so like us that we giggle not in surprise at the strange but in recognition at the familiar made new again.

★

Arlington Road has a clever plot set-up, a brave ending and two hours to while away in between. Jeff Bridges is the university history teacher raging against the system – his classes are like polemical performance art – while his neighbour in Washington suburbia is "structural engineer" (could that be an anagram for "mad bomber"?) Tim Robbins. Robbins is obviously a creepy person since he wears his hair combed forward, always a giveaway in Hollywood. The plot ticks engagingly up to the point where All Is Revealed. After that it hastens towards triteness, with only the payoff belonging in a better film.

★

I would rather have a week in Sing Sing than another *Night At The Roxbury*. At the press show this comedy was a laughter-free zone. Stars Will Ferrell and Chris Kattan originated their characters, two disco-nerd brothers, on American TV's *Saturday Night Live*. No wonder that one actor looks like Chevy Chase and the other like Michael *Wayne's World* Myers.

Perhaps they are Chase and Myers. What they are not is funny. The basic jokes are three. Can they get into LA's glitzy Roxbury dance club? Can they get off with bimbo X, Y or Z? And can they get home before rich disapproving parents Dan Hedaya and Loni Anderson change the locks, or Ferrell and Kattan's careers turn into pumpkins, which ever comes sooner?

Young musicians flourish under the northern lights

David Murray finds 'Musica Nova' as popular as ever in Helsinki

Karin Lovelius and Ilkka Hämäläinen enjoying themselves in Thomas Adès' 'Powder Her Face'

"Musica Nova" is what used to be the Helsinki Biennale for contemporary music. Having become annual now, it needed another name, but its artistic policy remains bracingly eclectic under a regular succession of directors. That reflects what new Finnish music is like, too: open-eared, undoctrinaire and individualistic, but most thoroughly and professionally educated.

Music education in Finland may well be the best in the west, for performers and composers alike. It engages an astounding proportion of the younger population, thus ensuring readily appreciative audiences. *We* should be so lucky! – but the music curriculum available in most British schools is too meagre, underfunded and crudely "populist" to produce anything like it.

This year's festival-director, Kimmo Hakola, chose to spotlight Britain's young Thomas Adès, their own Juha Koskinen (a year younger, even) and a clutch of female composers. Virtually everything Adès has so far written was performed, culminating with *Asyla*, his biggest orchestral work so far, and his famously naughty opera *Powder Her Face*. Conducting the Finnish Radio Symphony, Sakari Oramo made *Asyla* sound less *angst*-ily taut and eldritch than at its premiere under Simon Rattle, but almost as vivid.

Powder Her Face boasted an intrepid young quartet of principals – though Katariina Lahti staged it in broad vaudeville-style, less Ortonesque than lusty Whitehall, with no sense of the period decorum which the Duchess of Argyll's scandalous trial so grossly offended. Karin Lovelius and Piia Komsi sang the Duchess and her sly Maid with terrific resource. Young Susanna Mälkki conducted *Powder* (as her diploma-project! – she got 5 out of 5) with such skill and verve that she has been engaged for some of the forthcoming Aldeburgh and Almeida performances this summer.

With more calculated restraint, I hope. In Helsinki those of us who couldn't read the Finnish surtitles missed too many lines, despite all the singers' fluent English. Adès's exuberant orchestration challenged them hard, though it exudes its own exquisitely wriggly rewards – tangos, swoons, sparkily "real" *onomatopoeia* and some dogged Weill-ish whine. It is irresistibly clever, and now that the Duchess's "blow-job aria" (hummed, not sung) seems acceptable everywhere but in a few American states, you may get many more chances to hear it.

★

Young Koskinen's music teems and grinds with flinty musical ideas, precise but highly various. Each of the concise works we heard was crammed with them: pithy, ironical or convoluted, with a canny ear for solo-instrumental sounds. Nearly always they seemed to cry out for expansion – provocative enough, but held on a tight, cautious leash.

I liked best his dramatic monologue "Sappho-Suite", delivered by the mezzo Eeva-Liisa Saarinen in grand style, and his new *Narciso* (a Finnish Broadcasting Company commission), which answered only obscurely to its official Narcissus-and-Echo scenario but forged cogent musical links from start to finish. The opera that Koskinen is reportedly composing for Aix-en-Provence next year might prove a watershed.

As for the women: well, Unsuk Chin (Korean, b. 1961, already well established) was under-represented by her ritually sonorous piece *santika Ekatala* for Tokyo and her frankly Hollywood-ish *The Trojan Women* for Herakleion – competent and effective, not much more. *Amber*, by the Israeli Chaya Chernowin (b. 1957), shared a defect with Rebecca Saunders' (b. 1967) *G and E on A*: they both sounded like orchestral illustrations of pre-imagined sequences of timbral "colours" and densities.

Their dramatic logic was frail, more artfully picturesque than musically compelling. I don't for a moment suppose that "feminine" music *must* be like that: Saunders' music in particular reveals a subtle, original ear that should grow toward larger spans.

As if by coincidence, Marc-André Dalbavie's recent Violin Concerto distributed its large orchestra all round the hall, to satisfying effect and with continuous breadth. Harmonic echoes to and fro held it together, while the lone solo voice sent suggestions out into the wilds and reclaimed them with interest. In this far-flung genre, Dalbavie's concerto is one of the liveliest, most convincing and attractive forays that I've heard.

INTERNATIONAL Arts Guide

AMSTERDAM

OPERA
Netherlands Opera, Het Muziektheater
Tel: 31-20-551 8911
Die Zauberflöte: by Mozart. Conducted by Hartmut Haenchen in a revival of Pierre Audi's staging co-directed by Saskia Boddeke; Mar 18, 20

BERLIN

OPERA
Deutsche Oper
Tel: 49-30-34384-01
Der Rosenkavalier: by R. Strauss. Conducted by Jiří Kout in a staging by Götz Friedrich; Mar 21

BOLOGNA

OPERA
Teatro Communale
Tel: 39-51-529999
La Cena delle Beffe: by Giordano. Conducted by Bruno Bartoletti in a revival of Liliana Cavani's staging, first seen in Zurich four years ago. The cast is led by Daniela Dessi and Alberto Cupido; Mar 18, 20, 21

CHICAGO

CONCERTS
Orchestra Hall
Tel: 1-312-294-3000
www.chicagosymphony.org
Chicago Symphony Orchestra: conducted by Pierre Boulez in works by Stravinsky, Debussy and Berlioz, with harp soloist Sarah Bullen; Mar 18, 20

DRESDEN

OPERA
Semper Oper
Tel: 49-351-48420
Ariadne auf Naxos: by R. Strauss. Conducted by Colin Davis in a new staging by Marco Arturo Marelli. Cast includes Susan Anthony and Jon Villars; Mar 19, 22

LONDON

CONCERTS
Queen Elizabeth Hall
Tel: 44-171-960 4242
● London Mozart Players: conducted by Matthias Bamert in a programme of works by Mozart, with tenor Mark Tucker; Mar 18

Royal Festival Hall
Tel: 44-171-960 4242
Philharmonia Orchestra: conducted by Benjamin Zander in a selection of waltzes by J. Strauss, and Mahler's Symphony No. 5; Mar 18

OPERA
English National Opera, London Coliseum
Tel: 44-171-632 8300
Mefistofele: by Boito. Conducted by Oliver von Dohnányi in a new staging by Ian Judge; Mar 18

MUNICH

CONCERTS
Philharmonie Gasteig
Tel: 49-89-5481 8181

● Bavarian Radio Symphony Orchestra: conducted by Lorin Maazel in works by Mozart and Bruckner, with piano soloist Murray Perahia; Mar 20
● Stuttgart Radio Symphony Orchestra: conducted by Yutaka Sado in works by Gershwin, Chopin and Prokofiev. With piano soloist Ivo Pogorelich; Mar 18

OPERA
Bayerische Staatsoper
Tel: 49-89-2185 1920
www.staatstheater.bayern.de
Katya Kabanova: by Janáček. Conducted by Paul Daniel in a staging by David Pountney, with sets by Stefanos Lazaridis and costumes by Marie Jeanne Lecca; Mar 21

NEW YORK

CONCERTS
Avery Fisher Hall, Lincoln Center
Tel: 1-212-875 5030
www.lincolncenter.org
New York Philharmonic: conducted by Yuri Temirkanov in works by Shchedrin and Stravinsky, with violin soloist Hilary Hahn; Mar 18, 19, 20

EXHIBITIONS
Metropolitan Museum of Art
Tel: 1-212-879 5500
www.metmuseum.org
The Treasury of Saint Francis at Assisi: around 70 masterpieces of medieval and Renaissance panel painting, gold, textiles and manuscript illuminations, are joined by 30 loans. Includes pivotal works in the development of the early Renaissance; to Jun 27

Whitney Museum of American Art
Tel: 1-212-327 2801
Ray Johnson (1927-1995): Correspondences. First major museum show about the artist who was a progenitor of pop and mail art. The 150 works on display include paintings, collages and mailings from Johnson's New York Correspondence School; to Mar 21

OPERA
Metropolitan Opera, Lincoln Center
Tel: 1-212-362 6000
www.metopera.org
The Queen of Spades: by Tchaikovsky. Conducted by Valery Gergiev in a revival of Elijah Moshinsky's staging, designed by Mark Thompson. The cast is led by Plácido Domingo, Galina Gorchakova and Olga Borodina; Mar 18, 22

New York City Opera, New York State Theater
Tel: 1-212-870 5570
www.nycopera.com
● Lizzie Borden: by Jack Beeson. New production conducted by George Manahan in a staging by Rhoda Levine, with Phyllis Pancella in the title role; Mar 18, 21
● Madama Butterfly: by Puccini. Conducted by Guido Johannes Rumstadt in a staging by Mark Lamos first seen in November, with sets by Michael Yeargan and costumes by Constance Hoffman; Mar 20

PARIS

OPERA
Opéra National de Paris, Opéra Bastille
Tel: 33-1-4473 1300
www.opera-de-paris.fr
The Magic Flute: by Mozart. Conducted by Friedemann Layer in a staging by Robert Wilson; Mar 20, 21

Opéra National de Paris, Palais Garnier
Tel: 33-1-43439696
www.opera-de-paris.fr
La Clemenza di Tito: by Mozart. Conducted by Ivor Bolton in a staging by Willy Decker with designs by John MacFarlane. Cast includes Theo van der Walt and Christine Goerke; Mar 18

SAN FRANCISCO

CONCERTS
Davies Symphony Hall
Tel: 1-415-864 6000
www.sfsymphony.org
San Francisco Symphony Orchestra: conducted by Herbert Blomstedt in works by Berwald and Brahms; Mar 18, 19, 20, 21

THE HAGUE

EXHIBITION
Gemeentemuseum
Tel: 31-70-3388 1111
Silver from the time of the United East India Company: display of silver manufactured in the 17th and 18th centuries in former Batavia, by Dutch and other European silversmiths; to Mar 21

TOKYO

CONCERTS
Suntory Hall
Tel: 81-3-3584 9999

● Vienna Philharmonic Orchestra: conducted by Riccardo Muti in works by Schubert and the Strausses; Mar 18

VIENNA

EXHIBITIONS
Austrian Museum of Applied Arts
James Turrell: retrospective of the American artist to Mar 21

Osterreichische Galerie Belvedere
America: The New World in 19th Century Painting. Dealing with the period from the Declaration of Independence in 1776 until the US entry into World War I, this show traces the history of the country through the eyes of its painters; from Mar 17 to Jun 20

OPERA
Wiener Staatsoper
Tel: 43-1-51444
Cavalleria Rusticana: by Mascagni/Pagliacci by Leoncavallo. Simone Young conducts a staging by Jean-Pierre Ponnelle; Mar 21

TV AND RADIO

● **WORLD SERVICE**
BBC World Service radio for Europe can be received in western Europe on medium wave 648 kHZ (463m)

EUROPEAN CABLE AND SATELLITE BUSINESS TV

● **CNN International**
Monday to Friday, GMT:

06.30: *Moneyline with Lou Dobbs*
13.30: *Business Asia*
19.30: *World Business Today*
22.00: *World Business Today Update*

● **Business/Market Reports:**
05:07; 06:07; 07:07; 08:20; 09:20; 10:20; 11:20; 11:32; 12:20; 13:20; 14:20.

At 08:20 Tanya Beckett of FTTV reports live from LIFFE as the London market opens.

SAMUEL BRITTAN
ECONOMIC VIEWPOINT

Jobs at stake

The perfectly proper activities of one EU Commission directorate do more harm than all the sleaze just uncovered

Everything to do with sleaze makes wonderful *headlines*, especially when that sleaze *is attributed to the lack of* control of European Union Commissioners.

But there is one Brussels *activity which is doing more* harm than the negligence of the Commission. This is the activities of the directorate general for employment, industrial relations and social affairs – DG5. These officials are acting properly according to their sincere beliefs. But they have been pursuing a social policy agenda "largely as an article of faith and in a near analytical vacuum".

This quotation comes from a paper published by the Institute of Economic Affairs (*Regulating European* Labour Markets: More costs than benefits? by J. Addison and W. Siebert, £8). The paper starts with a helpful summary of the history of EU "social policy" which goes back to an action plan put forward by the Commission in 1974. Ironically enough the implementation of this policy became easier when Lady Thatcher acquiesced in an extension of majority voting under the 1986 European Single Market Act – an acquiescence that she now regards as a great mistake.

The activities of DG5 did not depend on the *Social* Charter of 1989 from which *John Major obtained an* opt-out, but on the "creative *use of health and safety* criteria". These include the *directives on the 48-hour* maximum working week, *where the European Court* overruled British objections. The 1997 Treaty of Amsterdam did however incorporate an "Employment Chapter" formally into community law.

The IEA authors hardly mention the single currency. *The inference is that they do* not regard it as particularly *relevant. Nor do they query* the British government's *adherence to the chapter.* They accept there could be *market failure in the* employment field and argue that "the blanket rejection of labour market mandates is unproductive". But they do remind us that "government failure" can be as bad as the market variety.

While the activities of leading EU commissioners attract notoriety, or occasionally praise, much of the development of EU doctrine takes place among medium-level officials who *remain in office, whoever* heads the Commission, and *who hand down an* established way of thinking. *The root belief of the DG5 is* that the single market is for *the benefit of business and* has to be balanced by an *offsetting body of rules to* redress the balance in favour of workers.

The possibility that such rules can price European workers out of jobs is not a major part of its thinking. DG2, the economic directorate, has only a limited influence on labour matters which are regarded as "social" – as if market influences do not apply to the supply and demand for labour.

I do not quite share the authors' optimistic belief *that "properly parametrised* models at the national level" would bring precision to the argument. Very often the *basic generalisations of* economics – such as the more that something costs the less you buy of it – explain more than attempts to determine exact numerical relationships.

There are always going to be difficulties in measuring non-wage costs, which have a large subjective element. There are also always going to be many influences apart from labour laws and social overheads affecting employment. Thus *it is* doubtful if we will ever be *able to escape from an* inevitably subjective *judgment of the historical* record.

Part of this record is summarised in the table, *which is taken from* Greenwich NatWest UK *Economics and is based on* Organisation for Economic Co-operation and Development estimates of changes in *structural* unemployment. The least controversial definition of structural unemployment is that part of the jobless total which does not reflect a deficiency of overall demand and cannot be cured either by an upturn in the business cycle or a more expansionary monetary or fiscal policy.

I have added, where it is available, an OECD index showing the stringency of *employment law in some of* the countries. Where *employment protection laws* are very stringent, as in Italy, a high score is given. Where they are relatively *permissive as in the US or* the UK there is a low score.

The broad lessons are clear. The European core *countries, namely Germany*, France and Italy, have high *and rising rates of structural* unemployment and also score heavily on employment law stringency. The apparent exceptions are as illuminating as the generalisations.

Japan's relatively good performance disguises the rise in demand-related unemployment, which has been a feature of the present recession and may well be understated by conventional unemployment figures.

Portugal has a comparatively low rate of *structural unemployment*, yet ranks very high in the *stringency of employment* laws. The IEA authors suggest Portuguese firms were apparently able to avoid some of the laws by building up pay arrears for workers whose services were no longer required. Moreover, an alternative index, based on employers' views of hiring and firing laws shows a notable easing of their job impact in the first half of the 1990s.

The Netherlands shows only moderate and *falling* structural unemployment and appears roughly in the middle on its stringency of employment protection. But other indices show that *labour market restrictions* were low or falling there. In *fact employer and union* organisations have got together with the government to make labour *less costly and difficult to* hire. This may show that a corporatist incomes policy has some possibilities in a *small and cohesive society*. But before hailing a Dutch miracle, remember that a large proportion of new jobs generated have been part-time, not necessarily reflecting workers' wishes but the lack of available full-time jobs.

According to the British Chambers of Commerce the *combined result of the* European social chapter and *the UK government's own* policies has been to add 2,000 new legislative clauses affecting business, adding £5bn to corporate costs. I wish somebody would do a detailed breakdown showing, for all countries, how many such burdens arise from national legislation and which can be blamed directly on EU rules.

Meanwhile, the IEA paper concludes with a deceptively simple reform proposal. The Commission has been charged with evaluating the possible effect of its measures on labour markets in general and small- and *medium-sized firms in* particular. In view of the authors it has failed to meet this obligation. "DG5 has neither the resources, nor, let us be frank, the will to do so." As a result the Commission's rules have been revised in one direction only – upwards.

The IEA proposes that Commission proposals should be subject to a form of efficiency audit. This function should not be assumed by DG5 but by an independent organisation like the US Congressional Budget Office. As a second best it should be done by the Competition Directorate. (*Why not DG2?* The main point is to have an audit by people different from those who are professionally most enthusiastic about subjecting the European *labour market to rules and* regulations and imposing *costs on employers.*

Those who might regard *this as a mouse of a proposal* do not understand the *European or any other* bureaucracy. It is easy to *stir up anti-EU sentiments in* the UK or to treat *everything that happens as a* move in the battle over the *euro. But it would be much* more productive to have independent investigations so that the proponents of labour market intervention were not judge, jury and prosecutor rolled into one. Recent events have surely shown that independent audit can make a difference.

Structural unemployment in the OECD countries, 1990-97

In the 1990s the structural unemployment rate has...	1990	1997	Stringency of employment law (pts score)
...increased:			
Finland	7.0	12.8	
Sweden	3.2	8.7	
Germany	6.9	9.6	12
Iceland	1.5	4.0	
Switzerland	1.3	3.0	
Greece	8.2	9.8	11
Italy	9.7	10.6	14
France	9.3	10.2	9.5
Belgium	11.0	11.6	10.5
Austria	4.9	5.4	
...remained fairly stable:			
Japan	2.5	2.8	4
Norway	4.2	4.5	
Spain	19.8	19.9	11
Portugal	5.9	5.8	12.5
US	5.8	5.6	0.25
Canada	9.0	8.5	
..decreased:			
Denmark	9.2	8.6	3.25
Australia	8.3	7.5	
N Zealand	7.3	6.0	
UK	8.5	7.2	2
Netherlands	7.0	5.5	7
Ireland	14.6	11.0	3
OECD (structural)	6.8	7.1	
OECD (actual)	6.0	7.5	

Sources: Greenwich NatWest UK Economics, IEA

LETTERS TO THE EDITOR

India's software success down to more than just millennium luck

From Tosh Sheshabalaya.

Sir, In "Silicon subcontinent" (March 15) Krishna Guha and Paul Taylor overstate the importance of Year 2000 work for the Indian software industry's success.

Year 2000 contracts accounted in 1998 for 23 per cent of Indian software exports. This is relatively insignificant in the face of the a growth rate of more than 50 per cent for exports as a whole. In other words, even if we were to count Year 2000 contracts in 1998 as a one-time bonus, export growth in other software segments would still have been a respectable 15 per cent to 20 per cent a year.

In fact, the writers do acknowledge that the 50 per cent growth rate has been maintained for "the past eight years", that is, well before any *serious* Year 2000 efforts began. This sustained growth *explains* why India has now outpaced one-time competitors like Ireland, eastern Europe, Russia and the Philippines combined.

There are more abiding reasons for India's software success than just a lucky draw with the millennium. Not least of these is the continued availability of qualified engineers in India, in the face of a growing (and demographically strengthening) shortage of skills in the west.

Since the mid-1990s, numerous Indian companies have also sought to migrate up the value chain, with an emphasis on productivity and quality. India has the world's highest number of ISO-9000 software companies. The best known of these (including most of the companies named *in your* article) have acquired the prestigious but very rare CMM Level 4 and 5 certifica*tions from* the US Software Engineering Institute. Such quality *credentials* helped Infosys make its dazzling debut on Nasdaq. *Other* Indian companies are expected to follow suit.

Even though wage differentials between India and the west will continue for some time, overall costs are rapidly narrowing, especially at the mid to upper end of the software skills spectrum. This is precisely the area targeted by many software companies in the country. Interestingly, four leading American high-technology companies (Motorola, Honeywell, GE and *Citicorp*) have their CMM certified operations *not in the US*, but in India.

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Israel's democracy in doubt

From Mr Brian Maccaba.

Sir, I am writing to express my amazement at the decision to prosecute former Israeli Chief Rabbi Ovadia Yosef, for criticising the Israel Supreme Court and its Chief Justice Barak. Rabbi Ovadia Yosef is the spiritual leader of Sephardic Jewry, who represent the ethnic majority of Israeli Jews.

This follows a five-year period of intensive police investigations and the state prosecution of *Aryeh Deri*, who is the leader of the third *largest political* party, *Shas*, which draws support mostly *from voters of a Sephardi* background.

It also follows the recent public attack on the Shas party *in the German media* by Israel's Ambassador to Germany.

Unlike many countries, the Israeli Supreme Court is a self-selecting body whose existing incumbents choose additional members. Its 15 members do not include anyone from a Sephardi background, a strictly Orthodox background or until recently, from an Arab Israeli background, despite these groups collectively representing over 70 per cent of the country's population.

The above situation is reminiscent of *South Africa* or certain parts of the southern *US* 30 years ago.

Is the State of Israel to be a police *state hiding behind* the facade of apparently *democratic legal* institutions, or a genuine democracy?

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Time to call Helmut Kohl to the bridge

From Mr James W. Beaumont.

Sir, The crew of the bad ship Brussels has been removed. The foreign exchange markets will not wait while Europe's politicians play politics. The euro will now be under severe pressure.

A *temporary* captain is required immediately; that man is surely *Helmut* Kohl.

He has the stature to demonstrate to the world that *his dream of a European* ship can be brought safely to harbour.

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Let battle commence

The battle for Telecom Italia has moved from corporate posturing to real restructuring plans for jobs and investment, says **Paul Betts**

The fighting has begun in earnest in Europe's largest takeover battle.

Yesterday, Roberto Colaninno, who rescued Olivetti from near collapse two years ago, spelled out the details of his audacious €53bn bid to take over Telecom Italia, the privatised telecommunications group seven times Olivetti's size. He also explained what he wants to do with the merged company.

Last week, Franco Bernabe, Telecom Italia's new chief executive, unveiled his *own strategy for the privatised group* – together with a *package of defensive measures* designed to barricade the company against Olivetti and any future predator.

Today battle between the two is joined again in London where Mr Colaninno meets institutional investors who account for more than 30 per cent of his prey's outstanding capital.

Already, the atmosphere surrounding the battle has turned frenetic. Yesterday, Lancia limousines hurtled Olivetti executives, bankers and lawyers in a triangle between the *Milan central* offices of Lehman Brothers, *one of the US banks acting* for Olivetti, to the company's *tower blocks in an ugly* suburb, and back again to *the palatial headquarters of* the region's powerful employers' association where Mr Colaninno took to the *stage*.

Both he and Mr Bernabe are *offering business plans* whose final aims are similar – *releasing greater value* and efficiencies – but whose *specific measures are radically* different in some areas.

Both want to reduce Telecom Italia's high costs and *cut jobs. Mr Bernabe's wants* to cut up to 40,000 jobs out of a *total of 124,000 employees* by selling non-core assets, *scaling back the fixed-line* telecommunications business, and *encouraging* people to take early retirement. *Mr Colaninno plans to* cut 13,000 jobs in the fixed-*line telecommunications* business (out of a total of *79,500 people now employed* in this area).

Mr Bernabe says his plan would reduce the group's cost base by L1,000bn over the next three years with an additional L1,250bn from "synergies". Mr Colaninno trumps that: he claims his plan will reduce costs by up to L4,500bn over the same period.

This one-upmanship continues with claims about how much *they will invest* and how much they will cut *telephone call charges*. Mr Bernabe intends to spend *L42,000bn over the next four* years; Mr Colaninno *L26,500bn. Mr Bernabe plans* to cut international and *domestic long-distance* call charges by 50 per cent by 2002; *Mr Colaninno wants to* do better, cutting these *charges by 70 per cent and* keeping local call charges *unchanged during the next* three years.

Lastly, the two want to expand the group's *operations in the internet*, electronic trading and data *communications.*

But there are big differ*ences in three areas: disposals*. Telecom Italia's interna*tional operations and its* relationship with the mobile *phone company*. *Telecom* Italia Mobile (TIM), the com*pany's 60 per cent owned* mobile telephone operator.

Mr Bernabe wants to dispose of the group's 50 per *cent stake in Italtel*, the telecommunications equipment *maker*. Sirti, the engineering subsidiary. Finsiel, the soft*ware unit and* the group's property portfolio.

Mr Colaninno wants to keep Finsiel and *use it to relaunch* the company in the business of telecommunications software, the internet and electronic trading. This move, some cynics suggests, would secure political support by promising the creation of an Italian software sector.

Like Mr Bernabe, he wants *to dispose of the Italtel stake* – but not immediately *because he is afraid the company* in its present state *would fetch a calamitously low price*. As for Sirti, Mr *Colaninno* says he first wants to understand *whether the engineering* company offers much strate*gic value to Telecom Italia.* The plan would be to clean it *up, reduce, costs dramatically*, and find new allies.

On mobile phones, Mr Bernabe plans to merge Telecom *Italia with TIM as part of his* strategy to integrate mobile *and fixed-line operations*. Mr Colaninno considers this a *poison pill, because it would* increase the value of Tele*com Italia by an estimated* €20bn. The Olivetti chief *believes* fixed line and mobile services can be integrated commercially without merging the two companies.

On international operations, Mr Bernabe con*siders the group's European* and Latin American activities as vital. *Mr Colaninno* wants to concentrate essen*tially on Europe. Over the* past few years, Telecom *Italia has acquired about* $4bn worth of assets in Latin America. International telecommunications groups such as AT&T, Cable & Wireless, British Telecommunications have all been attracted by these assets. Under the previous, troubled management of the company, they were used to attract an international partner for Telecom Italia.

Mr Colaninno could raise a substantial amount from the eventual sale of these assets, which could be used to reduce the heavy indebtedness which the group would incur if its highly leveraged bid were successful. Another option to reduce debt for Olivetti would be a merger of Tecnost, the vehicle it is *using to mount its takeover* with Telecom Italia to take *advantage of the telecommunications group's substantial* *cash flow to pay down debt.*

Of course, these rival *strategies are not everything*. The outcome of *Europe's takeover royal will* be determined by all sorts of *factors, including (for example)*, the price. Many investors and analysts argue that Olivetti's current bid is too low.

Much will also depend on the Telecom Italia's *proposed* defensive moves. Mr Bernabe *is proposing to convert* Telecom Italia savings shares into common stock and organise a large share buy back, *which would* increase the value of his company sharply. *If* he wins shareholder approval for this, Olivetti *could* well decide to throw in the towel. The *company has already* argued these measures would not only *frustrate it* but any future takeover *attempt by anyone. If Mr* Bernabe does not secure necessary *shareholders* approval, then Olivetti *would probably have a* chance, but on condition, *financial analysts say*, *it* sweetens its bid.

Curiously, Olivetti has yet to issue a prospectus for its offer, which technically is still only an intention to bid. *But is clear that in the grand* battle for Telecom Italia, the *phoney* war of executive egos is now over: it is now a *fight* between real restructuring plans, with real jobs at stake.

Colaninno: seeking to woo investors with his business plan

COMMENT & ANALYSIS

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A victory for EU democracy

The one institution of the European Union that has emerged from the upheaval of recent days with its image and influence enhanced is the European Parliament. Derided for years as a self-important, extravagant and largely powerless body, the directly elected assembly of the EU has suddenly shown that it has teeth. The mass resignation of the European Commission, faced with the threat of a new motion of censure for its failure to curb fraud and mismanagement, marks a dramatic shift in power from bureaucrats to parliamentarians.

That is a vital and positive step in the continuing evolution of the EU. The lack of democratic control over the Brussels bureaucracy, and over the national bureaucrats who negotiate and largely decide the attitudes of the 15 member states in the Council of Ministers, has been one of the most glaring weaknesses in the system. That so-called democratic deficit has shrunk by a significant amount this week. The parliament succeeded in calling unelected officials to account. But there is still a long way to go.

For a start, members of the parliament must put their own house in order. They have been far too slow to regulate their generous expense allowances and introduce a well-ordered system of staff appointments and promotion. Everything they demand of the European Commission in terms of transparency, promotion according to merit (rather than nationality or personal connections) and codes of correct public conduct must be applied in their own institution. That is still not the case today, although new rules are in the pipeline.

It is all the more important because the parliament is about to acquire a large extension of its authority, thanks to the Treaty of Amsterdam. It still cannot initiate legislation as a national parliament might do. But it will enjoy the power of co-decision with the Council of Ministers over more than two-thirds of all EU legislation, compared with less than one-third today. The parliament can no longer be tolerated and largely ignored. Its views will matter.

If the new system is going to work, the parliament must become far more efficient in its work of drafting reports and amendments, or the EU decision-making process will grind to a halt.

A bigger challenge is for MEPs to make themselves better known and more relevant to their own electorates. They have to persuade voters to turn out at the polls in June. For only if they can show that they have a popular mandate, as well as constitutional teeth, can they hope to become genuinely equal partners with the other EU institutions.

Olympic scandal

The Olympic movement has missed its chance to make a fresh start this week after the corruption scandal that besmirched its reputation. At the IOC's special congress in Lausanne yesterday, members gave their president, Juan Samaranch, a near-unanimous vote of confidence. But he must bear ultimate responsibility for the slack discipline among IOC members and the organisation's slowness in dealing with the corruption allegations.

It was only after a senior IOC official said that members had been bribed to vote for Salt Lake City's bid for the 2002 winter Games that Mr Samaranch took action. He should have resigned to allow someone else to lead the Olympic movement into the next century. The decision to expel the six IOC members found by an internal inquiry to have behaved improperly was more encouraging. However, there is a suspicion that bigger fish have been allowed to get away. The six expelled members all came from small, southern hemisphere nations with little influence within the IOC.

Today, members will be asked to approve a series of reforms intended to streamline the process of choosing host cities, modernise the organisation's structure, and open up the activities of the IOC – and the selection of members – to external oversight.

These measures must be approved. Some confidence in the Olympic movement would be restored if outsiders were brought in to scrutinise the organisation, and IOC members were chosen by elections of their national committees.

But the most important vote will concern process for selecting host cities. The current system for picking Olympic cities, in which all IOC members participate, encourages bidders to buy votes. To eliminate this temptation, the executive originally proposed to hand over responsibility for selecting the host city to an independent committee.

Yet IOC members have forced the executive into a compromise solution because they do not want to give up their central role in the decision-making process. An independent selection committee will be charged with reducing the short list of bidding cities to just two, but the final decision will rest with the entire membership. This is not good enough. With more than 100 members involved in the decision, the opportunity for corruption would still exist. Having failed its biggest test in allowing Mr Samaranch to stay, the IOC executive can at least retrieve the situation partly by insisting members approve its original, more radical reforms. Otherwise, the job of cleaning up the IOC will be only half-done.

Korean calm

The agreement between North Korea and the US, which allows inspections of Pyongyang's supposed nuclear site at Kumchangri, is a welcome first step in resolving what was fast becoming a dangerous confrontation and a threat to regional stability.

In the short run it should ensure North Korea's freeze on its nuclear development remains in place. But more now needs urgently to be done to persuade Pyongyang to curb missile development and proliferation.

Despite the high profile given in Washington to China's missile development, North Korea with its possible nuclear arsenal, fast-developing missile capability, imploding economy and unpredictable politics remains one of the most dangerous places in the region, if not the world.

Last summer's missile launch over Japan terrified that country and showed Pyongyang was close to being able to fire missiles at the continental US.

That has given an immense push to the controversial and expensive theatre missile defence(TMD) project, which has in turn undermined Washington's relations with Beijing. Without the North Korean threat, Japan would have much less need of TMD. Its own relations with China would improve. If Japan did not participate, there would be less scope for extending TMD to Taiwan.

Thus it is in China's interest to participate in persuading Pyongyang to curb its missile development. But the central requirement is a more stable relationship between the US and North Korea that would open the door to economic assistance.

The forthcoming report by William Perry, the former defence secretary, on bilateral relations offers an opportunity to launch such a policy. To succeed, it has to be bold and bring real benefits to both sides. Progressive relaxation of US trade and financial sanctions would be worth offering in return for verifiable and enforceable commitments on missiles.

Because of its ability to retaliate against both South Korea and Japan, North Korea cannot be treated in the same way as Iraq. A comprehensive deal, including the easing of sanctions, offers the best way of leading it safely back into the international fold. Moreover, it would be in line with the present policy of South Korea, a clearly interested party.

It would be difficult to sell to a sceptical US congress, but Mr Perry has the stature to do so. For such a deal to work, the US would also have conscientiously to live up to its commitments – something it has been occasionally reluctant to do on the 1994 nuclear freeze agreement. North Korea would have to understand that this was the best and last chance of winning the kind of international relations that could help it sort out its catastrophic economic mess.

A second lease of life

A new surge of optimism has put an end to Japan's financial crisis. Government funds are flowing, bank stocks are soaring. Gillian Tett asks whether the euphoria is premature

For the past two years Japanese bankers have felt as though they were living on the edge of a cliff. This spring, they seem to be returning to safe ground.

While Wall Street surged this week in a blaze of publicity, on the other side of the world Japan was quietly notching up two startling achievements of its own. The Japan premium – the additional cost that Japanese banks, compared with US and European banks, have to bear to borrow dollars – disappeared for the first time since 1997. And on the stock market Japanese bank shares surged. The sector has gained a dizzying 57 per cent in the past six months – twice as much as the Dow.

The sudden improvement in the fortunes of Japanese banks has delighted the government, which says it is all thanks to its own efforts at banking reform. Kiichi Miyazawa, the finance minister, heralds the good news as "a change in the tide" that would be followed by a broader economic upturn. "It shows we are solving the financial sector problems," he says.

Is this optimism just another false dawn?

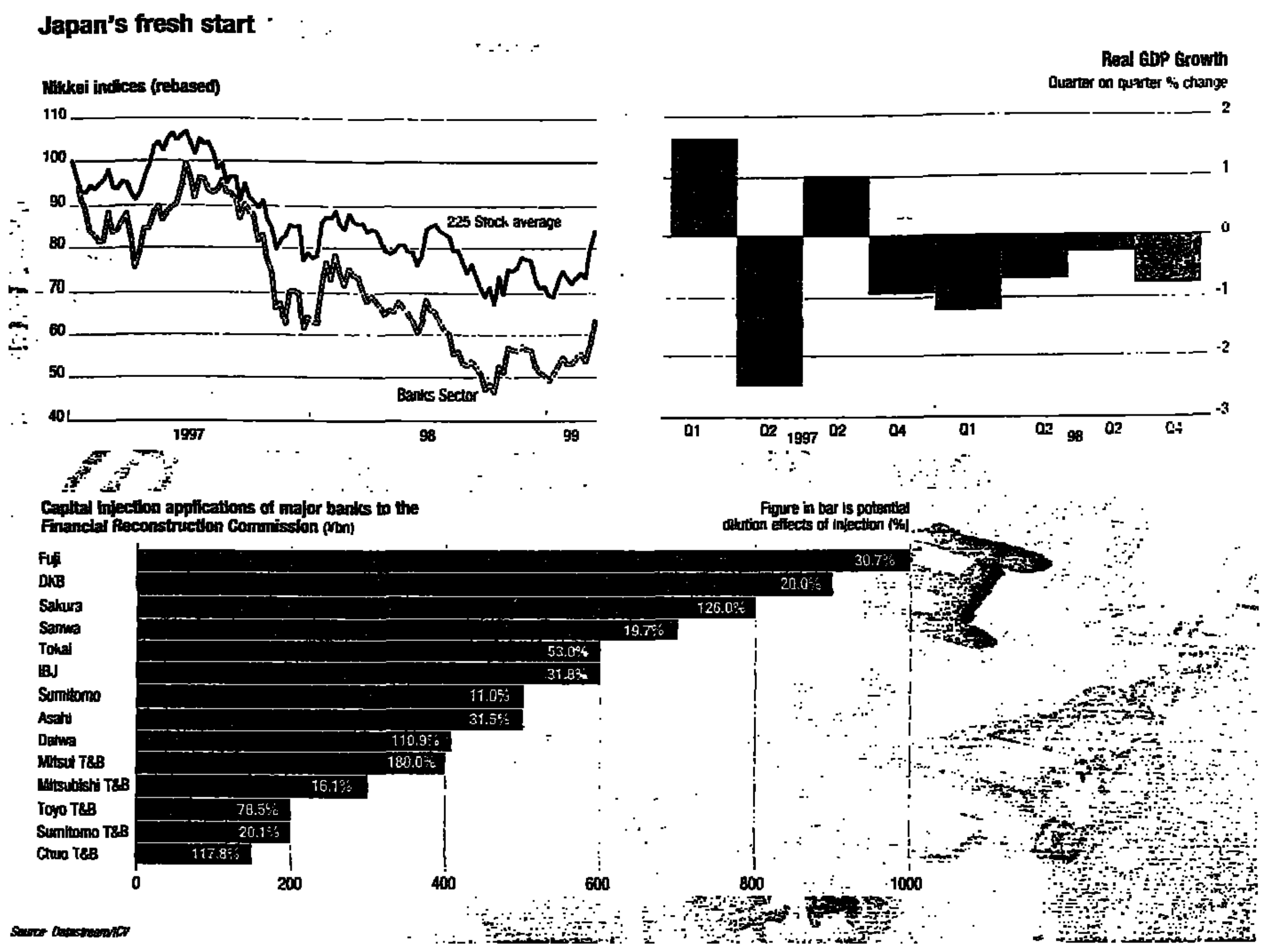
If Japanese banks really are finally putting their problems to rest, they could help pull the country out of recession this year, as well as provide a powerful boost to the rest of Asia. But if Mr Miyazawa's optimism were premature, financial markets could be in for another bruising. And this time around, foreign funds would feel much of the pain, as they (rather than domestic investors) have been the principal buyers during the recent stock market surge.

So is Mr Miyazawa correct to declare the financial crisis over? It depends. From the point of view of the outside world, Japan's banking debacle no longer looks like a threat to the global financial system. But from the perspective of the Japanese, the view is less rosy: however significant the reforms have been, they do not yet guarantee a healthy, competitive banking system capable of revitalising the economy.

This is because Japan's banking crisis had several different strands. When the Japan premium surged in October 1997, for example, it was initially blamed on bad loans that piled up after the collapse of the 1980s asset bubble. But the bad loan problem was no secret. The real trigger of the banking crisis appears to have been twofold: investors realised they could not judge the extent of the problem, since published data were poor; and they suddenly lost faith in the government's ability to bail out insolvent banks.

The panic spurred the government into action. First, the Financial Supervisory Agency, the banking watchdog body established last year, began exacting far stricter standards of disclosure on bad loans. The system is still far from perfect, but the improved data have "done a lot to boost credibility", says James Fiorillo at ING Barings.

Second, the rescue package announced last autumn is of such magnitude that it may have virtually ruled out systemic failure. The government has pledged Y60,000bn (£86.5bn) of public funds, consisting of Y25,000bn for injections into the banks' capital base to help them write off bad loans, Y18,000bn to nationalise weak banks and Y17,000bn to protect bank depositors and stave off a run on the banks.



Source: Datastream/ICV

Third, the government demonstrated that it could limit financial contagion. The Bank of Japan has become practised at lending to weak banks to prevent liquidity problems. It has also learnt to deal quickly with bank failures. When Nippon Credit Bank was nationalised in November, the bank handled it with much more skill than earlier collapses. "The Bank of Japan has learnt from its mistakes – it is doing a terrific job," says a Group of Seven central banker.

These measures averted a meltdown. But if Japan's economy is to show renewed signs of life, its banks must be nursed back to financial health so that they can start lending again. And for that to happen, bad loans must be written off more rapidly.

There has been some progress. The Financial Reconstruction Commission, the government body founded last year to oversee reform, will this month inject Y7,400bn of capital into 15 large banks, of which Y6,000bn will be in the form of preferential shares. In addition, banks are planning to raise around Y2,000bn through share issues. They have promised to write off Y9,300bn of bad loans in the current fiscal year. Hakuo Yanagisawa, who heads the Financial Reconstruction Commission, says these steps should be enough to eliminate the bad loans from the bubble era.

Even these dizzying sums, however, may prove insufficient to cure the Japanese banking malaise. The recession has triggered more loan defaults. Japan has experienced five consecutive quarters of economic contraction, and bankruptcies remain high. Provisioning for bad debts looks modest. Under current Financial Reconstruction Commission guidelines, banks are required to make provision for only 70 per cent of their Y7,000bn loans to bankrupt customers, and 15 per cent of their Y66,000bn loans to customers "which require careful monitoring". A Swedish official who was involved in his country's banking crisis says Japanese provisioning looks too small. Officials in Washington have suggest that bad loan reserves of between Y15,000bn and Y20,000bn will be needed.

This shortfall could be met by the funds set aside to buttress the banks' capital and reserves. The FRC still has Y17,000bn in the kitty. Some senior finance officials admit more capital injections are likely next year.

But even if banks become healthy and solvent again, it remains unclear whether they will be able to restructure their businesses.

Some progress has certainly been made. The government has already acted against several weak banks. It closed Hokkaido Takushoku, nationalised Long Term Credit Bank and NCB, and forced the mergers of Yasuda Trust and Fuji Bank and of Mitsui Trust with Chuo Trust.

Japan's banks must be nursed back to financial health so that they can start lending again

The government also persuaded the surviving banks to "restructure" in exchange for public funds. As a result, the top 15 banks have promised to cut staff by 15 per cent and their branches by 12 per cent, often by closing operations overseas. Not even executive directors have escaped the new austerity drive: banks have been streamlining at the top, and the average number of directors on banking boards has fallen from 29 to 17. "We are sincerely listening more closely to criticism of the banking industry by citizens," says Masao Nishimura, president of Industrial Bank of Japan. "We know we must restructure now."

Some government officials harbour even more radical plans. Some want to merge or shut down half of the top 17 banks in the next few years, segregating them into retail, international and wholesale niches.

Some also mutter wistfully about imposing a "Citibank" solution, referring to the draconian restructuring that turned the US bank's fortunes around in the early 1990s.

But cutting costs alone is unlikely to boost profits, since most Japanese banks are already surprisingly lean. Compared with Citicorp's 97,000 employees, Japan's top 10 commercial banks employ 124,000, as well as managing six times the assets of the US bank. Instead, the problem appears to lie in a weak revenue base and very low margins, which are about one-tenth of their US rivals. Healthier revenues will therefore require radical moves, such as withdrawing from unprofitable businesses and managing their vast Y600,000bn loan portfolio on straightforward market principles.

Can they do this? Bankersseem unwilling to have a go. To date, the government has not sacked any incompetent managers. They remain in their jobs, unreprimanded, with few incentives to change their ways. Profit-related or share-price-related pay, for instance, is unheard of in Japan.

The events of the past year may have diminished their willingness to take risks. Katsunobu Onogi, Long Term Credit Bank's president, was once considered one of Japan's most innovative managers. But his boldness is now blamed for the bank's collapse. "Nobody wants to be the nail that sticks out," says one young bank official.

At the Bank of Tokyo Mitsubishi, a senior official recently admitted: "A Citibank restructuring will never happen in Japan."

This caution may not necessarily matter, if the government itself keeps pushing for change. The Financial Reconstruction Commission has some powerful levers to change the way banks run their business. The commission will be able to convert its preferential shares in Daiwa, Mitsui Trust, Chuo Trust and Toyo Trust after only three months if it is unhappy with the banks' management. The government, in effect, would be nationalising those banks.

"For the first time in investment history it appears that shareholders of Japanese banks are going to come out on top. The government, as their biggest shareholder, has a major incentive to make the banks profitable," says Robert Zielinski of Lehman Brothers.

But banks are likely to change their ways only if the government keeps up the pressure. The danger is that the buoyancy of the stock market, and the general feeling that a financial meltdown has been averted, may weaken the government's reformist zeal.

Japan, in other words, may have eased its banking crisis. It may even have made the banks healthy enough to ease the short-term credit crunch. But this, unfortnetly, may not be enough. One of the reasons Japan's banking malaise has dragged on for eight years is that the government acts only when faced with panic in the markets. Now that the panic is over, the government may find it harder to summon the political will to exact the reforms that are needed to create really world-class banks.

OBSERVER

It's Bully for Bush

If it's feeling a little crowded on George W Bush's bandwagon, that's probably because 90m Mexicans just got on.

At times the Texas governor's amble towards the Republican nomination and the White House almost looks effortless.

All the same, Bush Jr, once nicknamed "Shrub" by an early dismissive opponent, is looking in all sorts of places for votes.

He's just landed on the front page of Mexico City's leading newspaper, identifying himself as "Mexico's Best Friend North of the Border".

That might sound slightly hollow from a man who routinely ignores mercy pleas from Mexico over its citizens on Texas's Death Row.

But while herds of *gringos* complain about wetbacks, drugs and corruption, the governor strikes a much more sympathetic tone about illegal immigration and America's endless appetite for illicit substances.

With plenty of Latino votes there for the grabbing, the message will sell well in Chicago as well as Chihuahua. But it might puncture one of Mexico's favourite pastimes: gringo-bashing.

Bill Clinton proclaimed a virtual love affair with Ernesto Zedillo, the Mexican president, after a St Valentine's Day meeting last month. Gray Davis, the new Democrat governor of California, has also caught the Mexican love bug.

Doesn't anyone remember the Alamo?

Carefree Caretaker

In public relations terms, the European Commission may just have glimpsed the best president it never had.

While Jacques Santer, the commission president forced to fall on his sword earlier this week, blustered about being "whiter than white", one of his former lieutenants put in a virtuoso performance.

Karel Van Miert, the Flemish competition commissioner, was confident, informative and persuasive yesterday when he explained the commission's powers and policies in its present limbo state. The 20-strong executive, which resigned en masse, hasn't yet cleared its desks and is staying on in a caretaker capacity.

So is Van Miert the man to lead the commission through its current time of troubles? Although everything might be up for grabs, a new permanent body isn't scheduled to take over until the end of this year.

Observer fears that despite all that's going for him, Van Miert might not make the grade. He's already made plans to go into academia. And, inconveniently, the report that triggered the commission's collective hari-kiri noted some of Van Miert's administrative failures in a previous euro-incarnation.

Fruit Salad

Be warned: in Hong Kong, the investment bankers are salivating. There's a tasty commission in the offing and next to no one can think about anything else.

Last summer, when the air was thick with speculators, the territory's government splashed out more than $100m on shares in an unconventional attempt to defend the Hong Kong dollar.

Now things are more stable and the government is looking for an adviser to help offload the shares sometime in the future. The task's certainly a tempting one: the prestige that comes with it would catapult any financial adviser well up the league tables.

But banking chiefs whisper that it might prove a little indigestible. Will painstakingly written research reports have credibility if the house is preparing to offload a serious chunk of shares? Will trading volumes be scrutinised with a degree of scepticism?

What's more, the government is likely to expect favourable rates for the privilege of its business, and advisers won't necessarily be offered the task of making any of the sales. A plum job? If you can avoid choking on the pit.

Awkward moment

Nelson Mandela must have wished he was somewhere else yesterday when his former comrade Allan Boesak was convicted of fraud and theft.

Mandela is touring Scandinavia, thanking the Nordic nations for their support through the apartheid years, and especially for the money they provided to help the oppressed.

Trouble is that most of the money that Boesak was found guilty of siphoning off came from those very countries.

Cleverly stupid

Amid all the commotion about its forthcoming flotation, Goldman Sachs has been sadly neglected for its inspiring contribution to the English language.

Observer's seeking to put that right. Not only has the investment bank pioneered the invention of self-explanatory phrases, such as "relentless thinking", but in its 1998 annual review – the equivalent of other, more ordinary firms' annual reports – it marries words and images to extraordinary effect.

Architectural photographs provide the perfect backdrop to fascinating oxymorons such as "simple complexity", "grounded reach" and "practical passion".

And Observer's favourite Goldmanesque conceit? Why, it's "volatile stability" of course.

The Financial Times

100 years ago

Fighting in Goldfields
The New York "World" publishes a dispatch from Vancouver that a desperate fight has taken place between American and Canadian miners on the Porcupine River, which forms the boundary between Alaska and Canada. The fight arose out of a disputed right to stake out gold claims and 100 Americans and 50 Canadians were engaged. Both claimed the disputed ground as within their respective countries and from words quickly came to blows, and finally to the use of revolvers. Ultimately numbers prevailed, and the Canadians were driven back, leaving three of their number dead on the field. One American was killed.

50 years ago

Summer Petrol
For the months of June, July and August, motorists will receive a double ration of petrol. This was announced in the House of Commons yesterday by Mr Hugh Gaitskill, Minister of Fuel. Because of the serious dollar deficit, the Government had decided that no permanent increase in the standard ration could yet be afforded. The issue would be a special summer holiday bonus.

FINANCIAL TIMES

THURSDAY MARCH 18 1999

THE LEX COLUMN

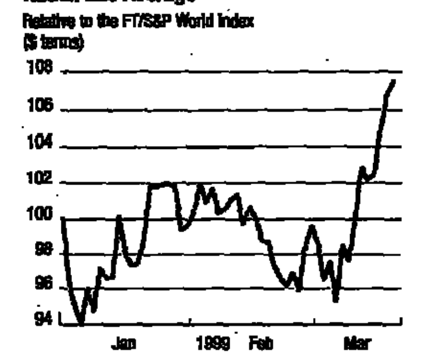
Beware the Japanese bull

Is there finally a bull case for buying Japanese shares? Almost unnoticed alongside the Dow's historic breach of the 10,000 level, the Nikkei has seized the mantle of this year's best performing major stock market index. Since January 1, it has risen by 16 per cent. Compared with that, the Dow has managed just 7¼ per cent and the FTSE 100 an anaemic 4½ per cent.

How are investors to read this surge? With considerable caution, if history is any guide. In the bleak years since 1989, foreign investors have periodically dipped into Japan, hoping to bottom-fish. The general result has been to provoke a transient rally – followed by renewed slump. On the surface, there is little sign that things will be any different this time. Japan's wheezing economy has not lost its capacity to surprise on the downside. This month's announcement that the economy contracted in the fourth quarter is a case in point.

One positive factor is the increasing stabilisation of the banking system, mainly due to a huge injection of government funds. The credit drought afflicting Japanese companies has abated, bringing a dramatic decline in bankruptcies. But this good news contains bad tidings for equities. In return for its largesse, the government is forcing banks to unwind their cross shareholdings, which may amount to 30 per cent of the market. Like its forebears, this rally may contain the seeds of its own destruction.

Nikkei 225 Average
Relative to the FT/S&P World Index ($ terms)



Source: Datastream/ICV

Mediobanca

Could Mediobanca find itself at the end of a break-up bid? The question would until recently have been considered almost *lèse majesté*, so strong was the Milanese merchant bank's grip on Italian finance. No longer. A series of botched deals have undermined Mediobanca's reputation for invincibility. And as observers realise the emperor is not wearing clothes, the rumour mill starts to churn.

Meanwhile, Mediobanca's defences are crumbling. The three Italian banks, which each own stakes of 8 per cent in Mediobanca and used to represent a formidable phalanx against intruders, are going their own way. And Lazard Frères, once a close ally, is now a rival.

A break-up bid would also have a motive. Mediobanca owns a direct stake of 12 per cent in Generali, the insurance giant, and a further 5 per cent in association with Lazard. Buying Mediobanca could therefore be a route to controlling Generali. That might interest one of the big Italian banks or even a foreign insurer such as Axa. Moreover, Mediobanca trades on a big discount to the sum of its parts: the Generali stake alone accounts for two-thirds of its €6.7bn market capitalisation. If capital gains tax problems could be resolved, the buyer could make a healthy profit.

There is still residual awe for Mediobanca. So nobody may have the guts to launch a bid. But if it fails to reassert its power quickly, all bets will be off.

DLJdirect

After deliberating for several months over the sale of a stake in its discount internet brokerage business, Donaldson Lufkin & Jenrette yesterday announced an initial public offering in DLJdirect. In fact, the wording is misleading: DLJ is offering not a stake in the ownership of DLJdirect but a tracking stock. DLJ's management appears to have had second thoughts about giving up even a 10 per cent stake in the ownership of a core strategic asset. This thinking has some merit: a true IPO would require a separation of DLJdirect from the core business which might be difficult to execute given its strong links, particularly with DLJ's clearing unit, Pershing.

It seems rather surprising that the tried if not fully trusted route of a tracking stock has not been used before to release the value of an internet business and it may set a trend. Ziff Davis, the media and marketing group, is already planning a tracking stock for its internet service ZDNet. And given avid demand for internet plays, the tracking stock may gain in popularity among investors too.

A DLJdirect tracking stock is better than nothing, and will certainly help DLJ release some value for its own shareholders. While DLJdirect is not one of the fastest growing internet brokers, its higher-end franchise is a valuable one. But a real IPO offering a direct stake in DLJdirect would still have been a more exciting prospect for investors.

UK motor retailing

Tyre-kickers at the Monopolies and Mergers Commission will recognise the problem quickly. After all, they reviewed the UK motor retailing industry just eight years ago. New car prices remain way above continental levels, vary little from dealer to dealer and show no sign of converging downwards. Since it is hard to imagine a more mobile product, the absence of price harmonisation within the single market must raise eyebrows.

The imbalance of power between motor manufacturers – predominantly Ford, Vauxhall and BMW/Rover in the UK – and their highly fragmented franchise dealers looks an obvious target for criticism. The lack of volume discounts for dealers, which fear losing their franchises if they ignore manufacturers' "recommended resale prices" or engage in parallel importing, obviously creates market inefficiencies. But this alone is not sufficient explanation for the price differential. After all, the same system applies across continental Europe, where prices are lower.

Other factors must therefore play an important part. That UK cars have right-hand, not left-hand, drive discourages parallel importing. And the strength of the pound and differing tax regimes are also distorting factors. So ending the Europe-wide system of exclusive dealerships, which is to be reviewed by the European Union next year, should help at the margins. But on its own it is unlikely to be a big boon.

IOC expels six members accused in corruption probe

Samaranch survives after near-unanimous vote of confidence

By Patrick Harverson in Lausanne

The International Olympic Committee yesterday attempted to draw a line under the worst scandal to hit the Olympic movement in its 105-year history when it expelled six of its members.

But demands from outside the organisation for Juan Samaranch, the IOC president, to resign went unheeded at the meeting in Lausanne, Switzerland.

Instead, the 78-year-old Spaniard, widely criticised for failing to take earlier action over corruption allegations, received a standing ovation and near-unanimous vote of confidence in his leadership.

The six were expelled for accepting several hundred thousand dollars' worth of cash, gifts and other inducements from Salt Lake City during its successful bid to host the 2002 winter games.

The expulsions came at the end of a tense six-hour meeting in which the members accused by an internal IOC inquiry of inappropriate and unethical behaviour were allowed to defend their actions. However, after a series of secret ballots, they were all thrown out by overwhelming majorities.

All but four of the 90 members who attended the extraordinary session supported Mr Samaranch, who earned a standing ovation after he pledged to lead the movement into the next millennium. He has been president of the IOC since 1980.

The six members expelled were: Agustin Arroyo of Ecuador, Zein El Abdin Ahmed Abdel Gadir of Sudan, Jean-Claude Ganga of the Republic of Congo, Lamine Keita of Mali, Sergio Santander of Chile and Paul Wallwork of Samoa.

At least 30 votes were needed to avoid expulsion, but none of the six received more than 19 votes of support. There was no immediate comment from any of the ousted members, all of whom had professed innocence of any wrongdoing.

However, the evidence against them was regarded by the IOC executive as overwhelming. An investigation into the Salt Lake City bid found that Mr Ganga had received $270,000 in cash, medical and travel expenses and lavish gifts from the bid committee, Mr Arroyo's family almost $21,000, and Mr Gadir's son $17,000.

Yesterday's expulsions took the total number of IOC members to fall victim to the scandal to 10 – four other members had resigned before the Lausanne meeting.

Nine other members implicated in the scandal, including senior figures such as Kim Un Yong of South Korea and Phillip Coles of Australia, received official warnings from the IOC executive for their behaviour. The former is still under investigation and could yet face expulsion.

The special session continues today when IOC members will be asked to approve changes to the bidding process for the 2006 winter games and the establishment of an independent ethics commission to oversee the IOC.

Editorial comment, Page 15

Beijing tries out overseas fund managers with forex reserves

By James Harding in Shanghai

China is considering handing over management of part of its $146.5bn foreign exchange reserves to international banks and fund managers.

The State Administration of Foreign Exchange, or SAFE, which is responsible for the reserves, has already begun to allocate trial amounts from the reserves to overseas financial institutions to test the rates of return as well as the risks of external fund management.

Foreign management of even a part of China's foreign exchange reserves – the second largest in the world – could represent a substantial business opportunity for international banks and might mean the funds becoming more actively traded in global markets.

A senior Chinese official said: "It is going to be a long process. We will see who is better, who has the edge, who is going to work best with China's foreign exchange fund management." The trial is part of the SAFE authorities' efforts to raise returns on the country's substantial foreign currency holdings while maintaining a conservative investment policy. Entrusting foreign financial institutions with some of China's reserves is also intended to improve officials' understanding of world financial markets.

Asked if there were concerns about the security of foreign administration of parts of the Chinese reserves, the official noted that some governments and "central banks have used external fund managers for some time and ... allocated fairly large parts of their reserves to external management".

The Government of Singapore Investment Corporation began placing funds with private sector international managers based in the city state in 1994.

The Chinese trial, understood to have begun last year, has been structured to explore the rates of return as well as the quality and liquidity of investments by geographic distribution, by type of financial institution and by investment methodology, the official said.

"The reason we have these reserves is to deal with any unexpected or expected negative change to the balance of payments," he added. "So it is very important to maintain high quality and high liquidity ... at the same time, a high return from the reserves is an important part of the job."

The funds would have to continue to be invested in the Group of Seven industrial countries, in sovereign instruments or in supranational and corporate bonds with triple-A ratings, he said. China would continue to operate an extremely cautious policy in the management of its foreign exchange reserve funds.

International banks keen to optimise returns would be likely to trade the funds under their management more actively than the Chinese government authorities, said one analyst familiar with China's forex reserve system.

CONTENTS

Aryeh Deri, leader of Israel's ultra-Orthodox Shas party, is greeted by supporters after his conviction in Jerusalem for fraud, breach of trust and bribe-taking. He will be sentenced next week. Page 6 Picture: AP

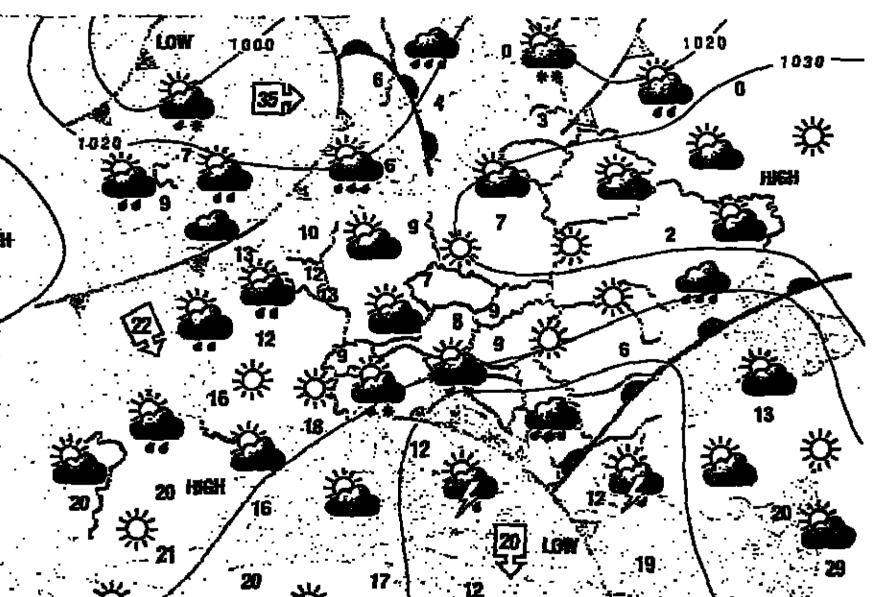
FT WEATHER GUIDE

Europe today

Most of France will have a settled day with a lot of sun but the far north will have showers. The Iberian Peninsula will be very warm with perhaps a shower on the northern coast. High pressure will dominate the rest of the western Mediterranean, central and eastern Europe giving settled and sunny weather but the Alps may have a few showers. The eastern Mediterranean will see heavy and thundery showers. Scandinavia will also be unsettled with rain in the south and snow in the north.

Five-day forecast

Most of north-west Europe will be breezy with sun and showers. It will turn colder, particularly over central Europe, with sleet and snow. Turbulent weather over Greece will clear to leave brighter weather for the weekend.



Situation at midday. Temperatures maximum for day. Forecasts by PA WEATHERCENTRE

TODAY'S TEMPERATURES

		Maximum Celsius
Abu Dhabi	Sun	23
Accra	Fair	32
Algiers	Fair	20
Amsterdam	Shower	10
Athens	Rain	12
Atlanta	Fair	21
B. Aires	Fair	26
B.ham	Fair	11
Bangkok	Fair	35
Barcelona	Fair	16
Beijing	Sun	13
Belfast	Shower	8
Belgrade	Shower	5
Berlin	Fair	9
Bermuda	Fair	22
Bogota	Fair	19
Bombay	Sun	32
Brussels	Shower	12
Budapest	Fair	9
C.hagen	Shower	6
Cairo	Sun	31
Caracas	Sun	31
Cardiff	Fair	10
Casablanca	Sun	20
Chicago	Fair	8
Cologne	Sun	13
Dakar	Fair	24
Dallas	Thunder	19
Delhi	Sun	31
Dubai	Sun	24
Dublin	Shower	9
Dubrovnik	Shower	13
Edinburgh	Shower	9
Faro	Sun	20
Frankfurt	Sun	12
Geneva	Fair	9
Gibraltar	Sun	21
Glasgow	Hail	7
Hamburg	Fair	11
Helsinki	Snow	0
Hong Kong	Cloudy	25
Honolulu	Shower	27
Istanbul	Rain	11
Jakarta	Fair	32
Jersey	Fair	11
Johannesburg	Thunder	25
Karachi	Sun	30
Kuwait	Sun	23
L. Angeles	Fair	15
Las Palmas	Fair	21
Lima	Fair	27
Lisbon	Sun	20
London	Fair	13
Lux.bourg	Shower	13
Lyon	Sun	12
Madeira	Fair	19
Madrid	Sun	20
Majorca	Fair	18
Malta	Thunder	12
Manchester	Cloudy	10
Manila	Fair	32
Melbourne	Shower	24
Mexico City	Sun	25
Miami	Fair	26
Milan	Sun	13
Montreal	Rain	6
Moscow	Sun	0
Munich	Fair	6
Nairobi	Fair	27
Naples	Thunder	10
Nassau	Fair	25
New York	Shower	16
Nice	Fair	18
Nicosia	Fair	20
Oslo	Shower	6
Paris	Fair	12
Perth	Thunder	33
Prague	Fair	7
Rangoon	Sun	35
Reykjavik	Sleet	3
Rio	Fair	29
Rome	Shower	12
S. Frsco	Shower	15
Seoul	Shower	18
Singapore	Shower	32
Stockholm	Drzzl	4
Strasbourg	Sun	11
Sydney	Fair	25
Tangier	Sun	21
Tel Aviv	Sun	29
Tokyo	Fair	18
Toronto	Fair	5
Vancouver	Rain	10
Venice	Sun	13
Vienna	Fair	8
Warsaw	Fair	7
Washington	Shower	20
Wellington	Fair	19
Winnipeg	Fair	2
Zurich	Sun	9

FINANCIAL TIMES
COMPANIES & MARKETS
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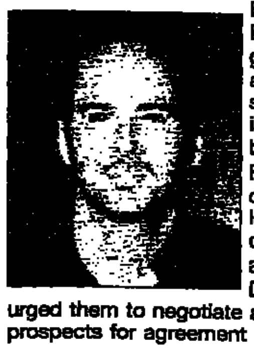
Week 11

INSIDE

LMA acts on distressed loan practice
The Loan Market Association, which includes 80 banks active in European loan markets, is to launch a code of practice for trading distressed corporate loans. The guidelines aim to regularise trading in loans that need to be restructured because of the borrower's financial problems, including the need to roll over loans, seek debt forgiveness or face insolvency. Page 26

Showdown time for Gucci and LMVH



Ever since LVMH, the French luxury goods group, started to build a $1.4bn (€1.27bn) stake in Gucci, the Italian fashion house led by US designer Tom Ford (left), the two companies have been locked in a ferocious clash. They are to meet at the behest of a Dutch court which has urged them to negotiate a settlement. But the prospects for agreement look slim. Page 20

Japan extends TFB purchase power
Japan's Ministry of Finance announced it would allow its Trust Fund Bureau to continue to purchase JGBs after April. The ministry halted TFB purchases last December but made a u-turn to sanction a resumption last month. Page 26

ECB urged to restrain gold sales
Concerns about the impact of gold sales by the International Monetary Fund on gold prices and production could be eased if the European Central Bank committed itself to restraining gold sales by national central banks. Page 28

Nissan reverses in to junk bond
Nissan Motor has joined one of Japan's more controversial clubs. Amid the speculation about its future, it was relegated to "junk bond" status by Moody's, the US credit rating agency. The move prompted government protests but also created a business opportunity. Page 22

Rate futures rise as Bank doves sing
Short sterling prices rose as the Bank of England hinted that more interest rate cuts were on the way, appearing to defy its official policy of taking each month as it comes. Page 27

Business booming on State Street
Fund management is supposed to have become about marketing to individuals but State Street Global Advisors' performance suggests otherwise. A decade ago, its assets were $17bn. Today they exceed $500bn. Growth has been achieved without acquisitions and with minimal attempts to tap the US retail market. Page 18

Oslo climbs out of cold storage
The cold snap that made the Oslo Total index one of Europe's worst performing markets last year has begun to thaw with growth in some of its most heavily traded stocks. Page 38

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MARKET STATISTICS

Olivetti seeks Telecom Italia job cuts

13,000 redundancies if hostile takeover bid succeeds

By Paul Betts in Milan

Roberto Colaninno, Olivetti's chief executive, yesterday said he intended to cut 13,000 jobs at Telecom Italia and shed the group's Latin American assets as part of a strategy to back his company's €53bn ($57.8bn) hostile bid for its Italian rival.

He also said he would reduce international and domestic long distance telephone call charges by 70 per cent.

In a clear effort to reassure holders of Telecom Italia non-voting savings shares, he said that Olivetti intended to launch a share buy-back for up to 30 per cent of the outstanding savings shares at a maximum price of €10 a share. This is the same price Olivetti is proposing for all Telecom Italia common stock.

Telecom Italia savings shareholders had become increasingly worried over the value of their holdings after Olivetti said that it would bid only for voting shares.

Mr Colaninno also said Olivetti would maintain a similar dividend payout for savings shares in the event that its takeover succeeded.

In a further move to sweeten the market, Olivetti is also proposing a sharp increase in the dividend payout of Telecom Italia Mobile (TIM), the cellular phone company 60 per cent owned by Telecom Italia. The company is proposing to increase the dividend up to 90 per cent of TIM's net profits across all classes of shares.

The Olivetti chief executive described the proposal of Mr Franco Bernabe, Telecom Italia's chief executive, to merge Telecom Italia and TIM as "a great stupidity".

The group's mobile and fixed-line telephone operations could be integrated without a merger, Mr Colaninno added.

The proposed merger by Mr Bernabe is part of a package of defensive measures that Telecom Italia will put to its shareholders next month.

Mr Colaninno yesterday described his €10 a share offer in cash, bonds and equity as a "just price". He said his industrial strategy aimed to boost Telecom Italia shares to €14 in five years.

The main points of the industrial strategy he outlined to the Milan financial community included the job cuts in Telecom Italia's core fixed line telecommunications business, which now employs 79,500 people.

A sharp reduction in call charges would be offset by new internet, data communications and electronic trading services to maintain flat revenues during the next three years. Olivetti's plan envisages L4,500bn ($2.52bn) in cost savings and no immediate disposals of non-core assets.

Instead, Mr Colaninno intends to review these operations, restructure them, secure new industrial allies and then consider selling some of them.

His international strategy would focus Telecom Italia on the European market and its current interests in Spain, Greece, and Austria. He said he did not consider Latin America to be strategic.

Mr Colaninno's plan envisages investments which will total L26,500bn over the next three years.

Doing battle, Page 14

Volvo chief defends car arm sale and vows to expand

By Tim Burt in Stockholm

Leif Johansson, chief executive of Volvo, yesterday defended the Swedish group's decision to sell its car division to Ford for SKr50bn ($6bn) and vowed to use the proceeds in an aggressive capital investment and acquisitions programme.

Mr Johansson, who last week secured shareholder approval for the deal, said Volvo's car arm had threatened to become a liability, diverting resources from its higher margin commercial vehicles, construction equipment and industrial engineering operations.

"The car division contributed insufficient profits over the past 10 years and swallowed large amounts of cash," he said. "I believe it would not do as well with Volvo as its owner, rather than Ford."

The Volvo chief executive, criticised by some Swedish commentators for selling a national icon, warned that other medium-size automotive groups would face similar decisions as the industry consolidated. "A number of car companies will have to ask themselves whether it is worth remaining small, uncompetitive and independent."

Mr Johansson said Volvo would seek a dominant position in speciality vehicles, building on its existing position as one of the world's top three truck, bus and construction equipment manufacturers.

He declined to comment on likely acquisition targets even though the group has already acquired 13 per cent of Scania, its rival Swedish heavy truckmaker, and held exploratory talks with Navistar, the US truck and bus group.

He emphasised that Volvo was planning to expand existing international production facilities. That is expected to include assembling trucks and dumpers in South Korea, where Volvo last year acquired Samsung's construction equipment arm for $572m, and assembling buses and construction equipment in India, where Volvo produces trucks.

Mr Johansson also pledged to press ahead with a SKr10bn share redemption if the Swedish government did not legislate to permit buy-backs.

Interview, Page 20

DLJ plans tracking stock for internet brokerage

By John Labate and Tracy Corrigan in New York

Donaldson, Lufkin & Jenrette, the US investment bank, yesterday took advantage of the soaring price of internet-related stocks and announced plans to issue a new class of shares to track the performance of DLJdirect, its internet brokerage.

The company said in January it was considering selling a stake in DLJdirect but it has instead opted for the more conservative option of creating a tracking stock.

A tracking stock confers the right to a stream of earnings in a business but not ownership rights, which in this case will remain with DLJ. The company wants to keep control of a strategic asset.

"They are addressing the demand for internet company shares," said Alex Stein, online company analyst at Gomez Advisors.

"It's unfortunate that they were only willing to go this far," he added, referring to the disappointment that DLJ had stopped short of a full initial public offering of shares.

Competing internet broking companies have seen their share prices soar in recent months.

New figures for internet trading volume for the initial months of 1999 have confirmed growing demand, after a rapid rise in the fourth quarter of 1998. E*Trade, the West Coast-based internet broker, has seen its stock rise from $6 in October to about $55.

"DLJdirect is obviously going to have a higher growth forecast and price to earnings ratio than DLJ and they are trying to take advantage of this in the market," said Michael Gazala of Forrester Research.

DLJ, which is 73 per cent-owned by the Equitable Companies, itself became public through an IPO of 20 per cent of its stock in October 1995. It is primarily a US investment banking business, with no retail brokerage business and, with this background, is unusual in having developed a separate internet brokerage business.

DLJdirect is one of the oldest internet broking businesses, the seeds of which date back to a product developed 12 years ago, called Prodigy.

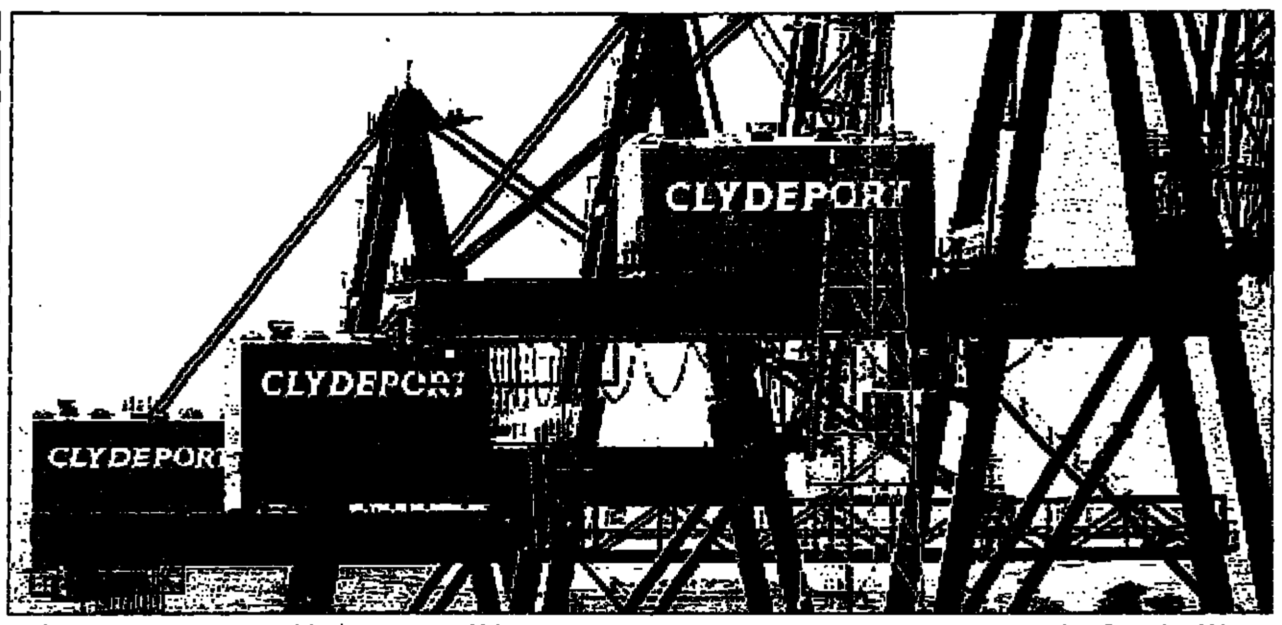
It is not growing as rapidly as some internet trading services, but analysts said it has not experienced some of the operational problems that have dogged others.

Bill Burnham, online analyst at CS First Boston in San Francisco, estimated that it ranked sixth among online brokers last year.

According to yesterday's filing, DLJdirect had 529,000 accounts as of the end of last year and conducted an average of 11,400 trades a day. It has total customer assets of $9bn. The business was rated number one online broker in a Barron's newspaper survey of online brokers. Its revenues increased from $67.2m in 1997 to $117.9m last year, a rise of 75 per cent.

Analysts believed DLJdirect would be valued in the public market at $1.5bn to $2bn. The company plans to use the money raised for marketing, international expansion and other corporate projects.

Lex, Page 16



Profits hoist: Clydeport, the Scottish ports operator which runs Hunterston, Greenock and Glasgow, has announced record profits and ambitious expansion plans. The figures were boosted by demand for coal imported from South Africa and South America. Full story, Page 24 — Martin Hunter

OTE AND KPN SET TO TAKE CONTROL OF BULGARIA'S STATE-OWNED TELECOMS COMPANY

Joint bid for 51% of BTC expected

By Kerin Hope in Athens and Gordon Cramb in Amsterdam

OTE of Greece and KPN of the Netherlands, both telecoms operators, are today expected to make a joint offer for a majority stake in BTC, the Bulgarian state-owned telecommunications utility, in the country's flagship privatisation deal.

The Bulgarian government set today as the deadline for binding offers for 51 per cent of BTC.

Embarrassingly for the government, however, OTE and KPN may be the only bidders for BTC. Telefónica of Spain and Deutsche Telekom, the German operator, have conducted due diligence in recent months but are considered unlikely to submit final bids.

A further stake of about 10 per cent is to be sold to employees this year.

The acquisition is expected to value BTC at $1bn-$1.5bn. However, the precise amount of the cash offer will depend on the number of employees to be retained and the level of investment required to raise the quality of telecoms services in Bulgaria to western European standards.

As part of the deal, the government is also offering a licence to set up Bulgaria's second GSM-900 mobile telephone network.

OTE is pursuing an aggressive expansion strategy in the Balkans. Last December it acquired 35 per cent and management control of Rom Telecom, the Romanian state telecoms utility.

It also holds a minority stake in Telekom Serbija, the Serbian state operator, alongside Telecom Italia.

KPN is also active in the telecoms sector in central Europe.

It holds stakes in SPT, the Czech fixed-line operator, and in mobile telephone and fixed-line business services in Hungary.

Vassilis Rapanos, OTE chairman, said the partnership with KPN marked a breakthrough in the Greek group's Balkan strategy. The acquisition payment would be shared equally, he said.

Wim Dik, chairman of the Dutch operator, said yesterday the investment was "too large and risky to do alone".

Under the terms of the joint bid, OTE would acquire 60 per cent and KPN 40 per cent of the 51 per cent holding in BTC's fixed-line operations.

The Dutch operator would hold 60 per cent of the new cellular operator with OTE taking the remaining share.

Merrill Lynch is advising OTE on its BTC offer. The Bulgarian government is advised by Deutsche Bank.

KPN results, Page 20

Smiths looking for acquisition around £2bn

By Michael Peel

Smiths Industries, the diversified UK engineering group that has been seeking a big acquisition, might consider spending more than £2bn ($3.2bn), more than double the amount previously intimated.

This was indicated yesterday when it said it had been interested in buying Sunstrand, the aerospace components manufacturer that has agreed a $4bn takeover by United Technologies, the US-based industrial group.

People close to Smiths, which has aerospace, industrial and medical divisions, had said that the group was looking to spend between £500m and £1bn on an acquisition.

The group confirmed yesterday that it would be interested in targets of that size, such as General Electric Company's cockpit displays business or the aerospace division of LucasVarity, the automotive components manufacturer.

But Keith Butler-Wheelhouse, Smiths chief executive, added that the group would have liked to have bought Sunstrand or Sherwood-Davis & Geck, the medical and surgical devices manufacturer that in 1997 agreed a $1.77bn takeover by Tyco International, the US conglomerate. Smiths bid for Sherwood but not for Sunstrand.

Mr Butler-Wheelhouse added that the group's acquisition strategy was "opportunistic" rather than focused on particular targets.

"We have got some things we are working on, as we always have," he said. "But it's very difficult to predict which ones will land."

A big acquisition would be in line with Smiths' strategy of raising sales after years spent focusing on increasing profit margins.

At the end of January the group had net debt of only £140m, against £159m 12 months before, and interest cover of 33 times (35.3 times).

But one corporate financier familiar with the group said it might struggle to find a reasonably-priced target.

"Every time a medical or aerospace acquisition comes up there are a lot of people chasing it," he said. "So any acquisitions are likely to be highly rated and therefore very expensive."

Smiths revealed that pre-tax profits for the six months to January 31 rose from £89.3m to £99.1m on sales up 9.7 per cent at £606.7m. Operating profits rose £11.3m in the aerospace division but remained about flat in industrial and healthcare as customers reduced stocks.

An interim dividend of 7.4p (6.75p) is payable from earnings per share up 2.3p at 22p. Paribas is predicting pre-tax profits of £235m (£218.1m) for the full year, putting the group on a forward multiple of 18.5.

The shares dipped 106½p to 853p, a fall analysts ascribed to profit-taking after a good run from a low of 624p in early October.

Comment, Page 23

COMPANIES & FINANCE: THE AMERICAS

TELECOMS MERGER WITH FRONTIER GIVES BERMUDA-BASED CARRIER ACCESS TO NETWORK COVERING BIGGEST US CITIES

Global Crossing achieves full-service status

By Richard Waters in New York

The race to create global fibre-optic networks capable of handling the explosion of telecommunications traffic in the internet era produced an $11.2bn merger yesterday between Global Crossing, an upstart international carrier, and Frontier, a US local and long-distance company.

Bermuda-based Global Crossing has already stolen a march on potential rivals by developing its own undersea cable network, giving it a way to attack the international traffic that remains one of the most profitable parts of the industry.

Like other newcomers that have set out to create high-capacity telecoms networks, the company has decided that buying an established carrier can give a big boost to its traffic and bring down costs, said Sajai Krishnan, a principal at management consultants Booz Allen. That echoes the decision by Qwest, the best-known new national carrier in the US, to buy the established long-distance carrier LCI last year.

Further deals could follow for Global Crossing. Bob Annunziata, chief executive, said the company would continue to search for ways to "gain market share and reduce costs".

With the purchase of Frontier, which operates a fibre-optic network spanning 20,000 miles in the US, Global Crossing will also extend its reach into the nation's biggest cities – a move that echoes its construction of a new regional network in Europe.

The deal also brings Global Crossing a number of alternative local exchange companies, which have sprung up in the wake of the deregulation of the $100bn US local telecoms market.

The move catapults the company from being a pure wholesale carrier, which sells capacity on its network to other telecoms companies, into a full-service company with both retail and wholesale operations.

It comes only three weeks after Global Crossing hired Mr Annunziata, a senior AT&T executive, as its chief executive. He had established his reputation as one of the most successful entrepreneurs in US telecoms by creating his own local exchange company, Teleport, which he sold to AT&T a year ago.

The former AT&T executive made clear at the time that Global Crossing was itching to expand from its origins in the undersea business to become a full-service global carrier. Yesterday's all-stock deal values Frontier shares at $62, provided Global Crossing's shares remain in a "collar" of $34.56 and $56.78. Global Crossing's shares slipped $4¼ to $47¼ yesterday morning in New York.

They had traded as low as $8 after the company made its debut on the stock market last summer, but the enthusiasm for new high-capacity telecoms networks that stand to benefit from the explosion of data traffic sent it as high as $62 at one stage. The deal will leave Frontier shareholders owning around a third of the company.

The deal represents a significant premium for Frontier, whose shares closed at $44½ on Tuesday.

The company had said earlier this year that it was exploring various alternatives, including a potential disposal.

Frontier, once known as Rochester Telecom, has attempted to branch out from its origins as a local exchange company in the upstate New York city from which it took its name, to create local networks in other big cities.

It was also one of the first companies to buy capacity on the Qwest network as a way of branching out into the long-distance business.

Deutsche to speed Bankers Trust job cuts

By Jane Martinson, Investment Correspondent

Deutsche Bank is set to ignore European law when it cuts thousands of jobs following its $10.1bn takeover of Bankers Trust, the US investment bank.

The German bank is understood to have decided that the formal consultation procedures demanded by European legislation would take too long and lead to increased uncertainty for staff. It is set to offer more generous terms for those staff it decides to dismiss rather than risk dragging out the integration process even longer.

European regulations demand that, among other things, employers consult with elected staff representatives and agree the selection procedure for dismissals. This process would start at the end of May, after the Deutsche bid is given the go-ahead by US regulators, and would be expected to last several weeks at least.

Senior Deutsche Bank executives are keen to merge the two operations as quickly as possible. They have therefore decided not to go through an extra month of consultation.

However, staff will be given severance packages which are understood to be more generous than usual. Payments of much more than three months' salary will be expected.

Although timing is a key consideration the bank has also decided that staff would also prefer to know their fate sooner rather than later.

Other banks cutting jobs in the past year, such as UBS of Switzerland and Merrill Lynch, have followed European regulations when cutting jobs. However, morale at both firms was felt by City analysts to have suffered badly as a result of the extra delays.

Employees could reject Deutsche's bid to cut out the extra consultation although the more generous packages could deter them.

Deutsche Bank, which announces its results today, is to cut 5,500 jobs in total as a result of the deal, with the axe falling hardest in London and New York.

About half of Bankers Trust's 2,000 employees in London are understood to have been offered employment with the combined group. However, not all of these people will agree to join the bank.

Deutsche also allocated $400m in incentive payments to stop its own highly prized staff from defecting to rival institutions. The bank employs more than 6,000 people in the UK and has recently moved into a new headquarters in the City. Bankers Trust staff who are offered jobs will move out of the group's Bishopsgate headquarters once the deal is finalised.

Vancouver port strikes threaten grain supplies

By Scott Morrison in Toronto

Strikes at five Vancouver loading terminals have disrupted grain exports from western Canada, prompting concern within the industry about damage to the country's reputation as a reliable grain supplier.

Almost 70 grain weighers at the port's five terminals walked off the job late last week and set up picket lines following a breakdown in negotiations with federal officials. The workers, employed by the Canadian Grain Commission, the federal quality control agency, have staged intermittent strikes over the past several months in a bid for a wage increase.

More than 40 per cent of Canada's grain exports are shipped through Vancouver, or about 250,000 tonnes every week. The country's grain shipment system operates on a just-in-time basis and delays could jeopardise that. The Canadian Grain Commission said there were already 15 ships waiting to be loaded in Vancouver, after only a few days of the strike. Exports affected by the strike include wheat, barley and canola.

"We could be seeing situations in which mills could shut down, particularly in Asia Pacific and Latin America," said Deanna Allen, a spokesperson for the Canadian Wheat Board.

Concerns about the reliability of Canada's grain supply put the country's industry in a poor position when it negotiated international contracts, Ms Allen said.

Traders in Japan have said they were concerned about shortages in the supply of some grains should the strike continue beyond the weekend.

Business is good on State Street

Targeting companies, not people, has paid off for the fund manager, writes **John Authers**

Fund management is supposed to have become a game of marketing direct to individuals – but State Street Global Advisors' recent performance suggests otherwise.

Its assets recently exceeded $500bn for the first time. A decade ago, its assets were only $17bn, more than half of which were in one big corporate pension fund. The growth has been achieved without acquisitions.

SSGA, the asset management division of Boston's State Street Bank, has also made minimal attempts to tap the US retail market for mutual funds. Rather than play the game of brand marketing in competition with big players like Fidelity Investments and Vanguard, it has restricted itself almost entirely to managing money for corporations.

It has taken advantage of the move away from defined benefit pension schemes, that guarantee a fixed proportion of final salary, to defined contribution schemes, where the amount available to pensioners on retirement varies with the market. Reforms in the US have made it much easier for companies to outsource their pension schemes to pension fund managers, particularly through "401(k)" plans which allow savers to switch between different funds.

Nick Lopardo, the feisty Brooklyn native who heads SSGA, said: "To go head to head with the retail businesses like Fidelity for the man on the street is suicide. I would rather take the consumer who's a 401(k) participant, or a brokerage participant. That individual I would refer to as an instividual – it's a corporation-driven programme which is really driven by the individual."

To attract multinationals, Mr Lopardo has built a global network of eight investment centres – in London, Paris, Munich, Boston, Sydney, Hong Kong, Montreal and Tokyo. Each offers a combination of investment strategies.

He is bullish about this capability, saying multinationals love "the ability to work across continents, and put together consolidated funds and consolidated approaches, so they are doing the same thing all over the world at the same time".

He says the other key element in State Street's strategy has been to offer companies tailored products. He compares this to the attempts to create full-service financial services companies via merger, such as Morgan Stanley Dean Witter and Citigroup. "We've tried to build a company which creates integrated solutions for customers, as opposed to throwing product at them. People are following a road map, and it's going to lead to these integrated companies."

Mr Lopardo's asset management business also benefits from the huge custody business operated by the bank. State Street is the largest custodian for US mutual funds, and the bank's chief executive, Marshall Carter, has encouraged all its divisions to think in terms of cross-selling. The average fund management client has six separate products from State Street, while some have as many as 17.

SSGA specialises in passively managed index funds, which account for about 60 per cent, or $300bn, of its funds under management. This has helped its growth, as indexing has risen in popularity in the US over the last few years, largely because S&P 500 funds have strongly out-performed actively managed funds.

The company is one of the world's largest indexers, competing in the institutional market mainly with the UK's Barclays and Legal & General, and now offers more than 100 separate indices which can be tracked.

But index management is a low-margin business, particularly when tracking established US market indices such as the S&P 500, so Mr Lopardo is attempting to build State Street's franchise for active portfolio management. Its more exotic offerings include limited partnerships for investing in eastern Europe and in Asia, and funds of hedge funds.

In the long term, the company remains committed to Japan, where it owns a trust bank, and to emerging markets, even though both have inflicted pain recently. Mr Lopardo is optimistic about the prospects for Japan: "There's too much money earning zero interest there, and there are just too many people in the younger generation who've been educated abroad and are coming back. They'll force change."

In the US, SSGA's greatest opportunity might come from social security reform, an issue where the bank has been a vocal advocate of change against trade union opposition.

The issue moved to the top of the political agenda in January when President Bill Clinton chose to concentrate on a call for social security reform in his State of the Union address.

Proposals include putting some of the government-held social security fund into equities – a controversial idea opposed by Alan Greenspan, chairman of the Federal Reserve – or offering all individuals much greater opportunities to invest in individual retirement accounts.

Nick Lopardo: offering companies tailored products

Wendy's raises profits forecast

By Andrew Edgecliffe-Johnson in New York

Wendy's, the US burger giant, is reaping the benefits of its decision to concentrate on new products, promotions and efficiency improvements rather than store expansion.

Shares in the third largest US hamburger group, after McDonald's and Burger King, rose by 10 per cent yesterday morning, after it told Wall Street its first-quarter and full-year earnings would be better than expected.

Wendy's same-store sales are up 10 per cent so far in the first quarter, as are comparable sales at Tim Horton, the Canadian coffee and doughnuts company bought by the group in 1995. In the US, Wendy's non-franchised restaurants increased sales by 14 per cent so far this year. Gordon Teter, chief executive, said the sales rises were being driven by new products such as Monterey Chicken Sandwich and Cafe Mocha, increased advertising and operational improvements stemming from its "service excellence programme".

As a result, the company expects first-quarter earnings of 23-24 cents per share, compared with 18 cents in the first quarter of 1998 and market forecasts of 21 cents. For the full year, it now expects earnings growth of between 15 and 17¼ per cent, rather than an original 12-15 per cent goal.

Janice Meyer, an analyst at Donaldson Lufkin & Jenrette, said: "We have a strong economy, and with more money in their pockets people tend to buy the better quality products. Wendy's is seen as higher quality."

Heidelberger in Kodak buy

By Peter Marsh in Dortmund

Heidelberger Druckmaschinen of Germany, the world's biggest maker of printing equipment, yesterday announced the purchase of a large part of the office imaging business of Eastman Kodak of the US.

The move marks an acceleration of the Germany company's effort to bring out a digital printing machine by next year.

While terms of the deal were not disclosed, it is thought that Heidelberger is paying about $160m to take over Kodak's digital printing and copying and duplicating business.

It effectively signals the US company's full-scale retreat from a costly diversification, attempted over the past 20 years, away from mainstream photography.

The deal underlines Heidelberger's determination to add computer and electronic skills to its core activities in print systems based on mechanical engineering.

Hartmut Mehdorn, chairman of Heidelberger, said the acquisition was a "wonderful opportunity" for Heidelberger to step up its efforts in digital printing. A new company, Heidelberger Digital, is being set up to develop this technology, which Mr Mehdorn is aiming should reach annual sales of $1.5bn by 2004.

Heidelberger Digital will have 3,500 employees, of which 1,000 will be in Germany and 1,000 in the US.

Included in this figure are staff employed by Nexpress, a joint venture established between Kodak and Heidelberger last year.

Lehman targets European growth

By Vincent Boland

Lehman Brothers, the US investment bank, is likely to step up its search for acquisition opportunities in Europe with the appointment of a chief operating officer for its London-based European operations.

Jeremy Isaacs, Lehman's head of European equities, was yesterday appointed as the bank's COO for Europe – a new post that observers and Lehman insiders said came with a mandate to look for suitable acquisition opportunities as well as pursuing organic growth.

Although often considered a potential takeover target by one of its rivals or a European bank seeking a substantial foothold on Wall Street, Lehman has remained independent in the current round of consolidation of investment banks.

It has also been building up its presence in the European markets in recent years to compete with its main US rivals, Goldman Sachs, Morgan Stanley Dean Witter and Merrill Lynch, which have either bought European businesses or expanded rapidly internally.

Mr Isaacs said his aim was to make Lehman's European business, which accounted for about 21 per cent of the bank's $4.1bn net revenues in 1998, as big as its US operations. There were "huge opportunities" in Europe to develop the bank's equity franchise, research and investment banking.

"We are an awful lot smaller in Europe than in the US. My job is to figure out how to get in Europe to where we are in the US," he said. The bank currently has 1,800 employees in Europe.

Lehman is in the top 10 investment banks for M&A advisory work globally, but has yet to break into the big league in Europe. However, it is one of the advisers to Olivetti, the Italian telecommunications group, in its hostile €53bn ($58bn) bid for Telecom Italia, and is advising Alcatel of France in its acquisition of Xylan Corp in the US.

Mr Isaacs is succeeded as head of equities in Europe by Roger Nagioff, who moves from being head of equity and equity derivatives trading.

NEWS DIGEST

COMMUNICATIONS

3Com and Alcatel in joint product development plan

3Com, the US data communications equipment manufacturer, and Alcatel, the French communications group, are to collaborate in the development of products that combine handheld computing and telecommunications technologies.

Initially, the companies plan to combine 3Com's Palm Pilot, pocket-sized personal organiser with Alcatel's GSM cellular telephones. The co-operation between the two companies would lead to new products before the end of this year, they said. In addition, they would cooperate in the definition of standards to enable communications between any handheld computing device and any mobile telephone. The process would be open to all industry parties.

3Com and Alcatel also said they planned to develop and market software for companies providing services for mobile computer and communications devices. Such services might include, for example, unified voice and data messaging. **Louise Kehoe, San Francisco**

INTERNET MUSIC

CD Now merges with N2K

CD Now and N2K, the world's largest specialist Internet music retailers, completed a merger which will create a combined company with an initial market capitalisation of $522m. N2K's Music Boulevard Internet site is to merge with the CD Now site into a single site which will adopt the latter's name. Despite growing competition from Amazon.com, the online bookseller which started selling music last summer, the new CD Now will be the largest player in the fast-growing online music market with 2m customers.

The merger, concluded in New York yesterday, has been under discussion since last autumn. The negotiations were haunted by speculation that the merged companies might attract a bid from an entertainment group anxious to secure a foothold in online retailing. Time Warner, the US media concern, has been mooted as a possible purchaser. The new CD Now is expected to accelerate plans to expand outside North America and to start selling by direct digital delivery. **Alice Rawsthorn**

ELECTRONICS

Hughes satellite scheme

Hughes Electronics, a unit of General Motors, said yesterday it would invest $1.4bn in the first system of its Spaceway global broadband satellite. Spaceway will provide a vehicle for high-speed communications for data, video and voice traffic. The first system is scheduled to begin operation in North America in 2002. It will ultimately allow applications such as video conferencing, distance learning and internet services faster and more cheaply than with current land-based systems, Hughes said. However, the satellite system would "seamlessly" integrate with such systems. Industry estimates project the demand for broadband data to reach $50bn in 2005 in the US market, the satellite maker said.

Hughes shares closed up 31 cents at $49.06 on Tuesday on the New York Stock Exchange. **Reuters, El Segundo, California**

AEROSPACE

Lockheed debt downgraded

Moody's Investors Service, the US credit rating agency, yesterday downgraded the senior debt of Lockheed Martin, the aerospace and defence company, to Baa1 from A3. About $8bn of debt securities are affected.

Moody's said the downgrade reflected "increasing business challenges facing its operating units; a debt reduction program that has been slower than expected; leaving a balance sheet that is still highly leveraged; and the likelihood that full restoration of the balance sheet will take some time". The agency added its move also reflected uncertainty over Lockheed Martin's acquisition of Comsat, the international communications and information company, and "the risks inherent in building a business position in the general telecommunications services market". **APDJ, New York**

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COMMUNICATIONS BRITISH SECTOR LESS COMPETITIVE THAN THAT OF NETHERLANDS, SAYS CHAIRMAN

KPN to move into UK telecoms market

By Gordon Cramb in Amsterdam

KPN, the Netherlands' dominant telecoms operator, is to enter the UK market by next year in a move which Wim Dik, chairman, intends as a direct challenge to British Telecommunications.

He said yesterday he regarded Britain as less competitive in telecoms than the Netherlands. BT had meanwhile been eroding KPN's domestic market share through Telfort, its joint venture with the state-owned Dutch railways. Telfort offers voice and data fixed-line services, has payphones on railway stations, and is the country's third mobile carrier.

While saying it was too early to specify which segments KPN would enter, Mr Dik said: "We will try to do in Britain what BT does in the Dutch market – and more than that."

He was speaking as KPN announced attributable profits for 1998 of Fl 1.52bn (€690m, $752m), down 21.7 per cent. That reflected a Fl 800m pre-tax charge for redundancies – stripped of this, net earnings rose 5.1 per cent to Fl 2.04bn, beating a forecast of 2-4 per cent.

But KPN shares fell €2.95 in Amsterdam, or 7.3 per cent, to €37.50 as Mr Dik warned that earnings from ordinary operations this year would reach only some Fl 1.6bn, and that it would take two to three years to restore these to the 1998 level. "The figures are OK, the outlook less so," said ABN Amro. Mr Dik blamed regulatory rulings which restricted tariffs and prevented the company targeting business customers with discounts. He added that, in spite of an understanding that he would depart by next year, he was prepared to stay on to see through the restructuring he had set in train.

The group is having to invest in its domestic network as a result of traffic growth and the demands placed on it by interconnections from its competitors.

The company plans to take an extra 9 per cent stake in Telecom Eireann at its coming flotation, bringing its holding in the Irish operator above 44 per cent. Mr Dik intends that to be a vehicle for a move into the UK, with which the Irish company conducts the bulk of its traffic. KPN had left the UK market to AT&T of the US under a pact now being unwound with Unisource, the Dutch-Swedish-Swiss telecoms alliance.

Mr Dik said KPN could enter the British market before July next year if negotiations proceeded smoothly with AT&T, which has tied up with BT.

KPN also said its holdings in eastern Europe had started to prove profitable. It earned Fl 69m from SPT Telecom, which operates both fixed and mobile services in the Czech republic. It has invested some Fl 1.7bn in SPT, in which the Dutch group and its TelSource affiliate control 33.5 per cent.

Paris regulator warns banks on takeover tactics

By Samer Iskandar in Paris

France's stock market regulator yesterday warned Banque Nationale de Paris, Société Générale and Paribas about the publication of sensitive information during their unprecedented three-way takeover battle.

The warning, from the Commission des Opérations de Bourse (COB), came as the protagonists resorted to increasingly aggressive lobbying tactics to convince investors, regulators and the wider public of the merits of their respective deals.

BNP last week launched a surprise double offer on SG and Paribas. BNP is offering 15 of its own shares for every seven SG, and 11 for every eight Paribas, to create a merged entity with a market capitalisation of more than €50bn ($54.5bn). The unsolicited bid threatens an agreed €15bn merger between SG and Paribas. Under French law, the three proposed transactions will run in parallel.

"During a public offering, all parties concerned, be they bidders or targets, must be particularly careful in their communication," the COB said. Information published by the banks had to be "submitted to examination [by the COB] prior to its publication". The COB normally does not issue such a public reminder of its rules. The last such reminder was also issued during a hostile takeover battle, between Promodès and Casino, two retailers.

Earlier yesterday, BNP had gone on the attack. It claimed SG's offer for Paribas had resulted in "substantial destruction of value" for shareholders. BNP calculated that SG and Paribas shareholders had lost FFr9.6bn (€1.46bn, $1.59bn) in the days following the lukewarm market reaction to their proposed merger.

SG for its part, has been circulating a document highlighting the allegedly uncertain elements in BNP's twin offers. It traced more than 20 scenarios that could arise from the BNP deal – each having different implications for shareholders.

The COB's authorisation is necessary for BNP's offer to proceed. The COB said it would rule next week, after a related decision is taken by the credit institutions committee, chaired by the central bank governor and including the treasury head.

On Tuesday evening, the Conseil des Marchés Financiers, the financial markets governing body, cleared BNP's offer. The CMF said its existing takeover rules were ill-equipped to tackle the unprecedented complexity of the deal. As a result, the regulator suggested strict timetables imposed by its rules might have to be "adjusted".

INTERVIEW: LEIF JOHANSSON, CHIEF EXECUTIVE OF VOLVO

Confident of place in history

By Tim Burt in Stockholm

Leif Johansson: next challenge is to reinvest the Ford proceeds wisely — Reuters

The chief executive of Volvo, the Swedish automotive group, is confident that he will be remembered as the man who preserved one of the country's most famous brands – not as the man who sold it to Ford of the US.

"I may go down in history as the executive who divested Volvo Cars," he said. "But that is preferable to being remembered as the man who missed the opportunity and failed to expand the remaining group."

In a defiant mood, Leif Johansson justified the decision to sell Volvo Cars for SKr50bn ($6.1bn) by saying the parent group had little choice.

Given the consolidation sweeping the automotive industry, Volvo lacked the financial resources to transform its highly-regarded car operations from a niche player – ranked 23rd in the world by size – into one of the five to 10 global manufacturers likely to survive the shake out.

"Our sense of national pride is not so acute that Volvo Cars is worth keeping, rather than putting in a business where it will become much more competitive," said Mr Johansson.

Although he has been criticised by some small shareholders for selling the business, he maintained that the viability of the division had become increasingly questionable.

"It is clear that we were in danger of becoming consigned as a small manufacturer with a premium brand, and it was open to doubt whether we could generate the cash necessary to develop the next generation of cars."

Mr Johansson claimed that his view has been overwhelmingly supported by institutional shareholders, Volvo's own managers and, crucially, its unions. Given that this axis helped scupper the 1994 merger with Renault of France, he has been relieved that no concerted rebellion has emerged over the Ford deal.

The next challenge will be to prove that Volvo can reinvest the Ford proceeds wisely, without over-paying for acquisitions or adding excess production capacity in fragile emerging markets.

Volvo has abandoned takeover talks on Scania after failing to agree financial terms with Investor, Scania's main shareholder.

However, Volvo has drawn up plans to expand manufacturing facilities in South Korea and India, while also investing in a new engine line at Penta, its marine engine subsidiary, and expanding its interests in medium-size trucks.

Schering may seek biotech buy

By Frederick Stüdemann in Berlin

Schering, the German pharmaceuticals group, yesterday said it planned to develop a "fourth leg" in its business portfolio through acquisitions, most probably in the biotechnology sector.

The Berlin-based company said its ability to fund big acquisitions would be significantly bolstered by its planned disposal of its 24 per cent stake in Aventis Crop Science, the agrichemicals business to be created by the merger of Hoechst of Germany and Rhône-Poulenc, the French group.

Klaus Pohle, Schering chief financial officer, said the company hoped to gain DM10bn (€5.11bn, $5.58bn) from the sale of the stake. "That will take us into a completely different league," he said. He also said the company, which last November became the first big German company to carry out a share buy-back, would seek shareholder approval for an option for a capital increase to raise around €2bn as a further means of funding possible acquisitions.

Giuseppe Vita, chairman, said this apparently contradictory approach was aimed at creating as much flexibility as possible. He said Schering was already looking at acquisition possibilities in the bio-technology sector as a means of expanding its existing activities in female healthcare, therapeutics and diagnostics.

Schering's stake in Aventis Crop Science derives from its 40 per cent holding in AgrEvo, the agrichemicals business it co-owns with Hoechst. Earlier this year Schering arranged with Hoechst and Rhône-Poulenc to allow it to sell its stake in Aventis Crop Science from 2004. From 2007 Aventis, which will have the right of first refusal for the Schering stake, will have an option to force a sale at "fair market value".

Schering said it expected sales in 1999 to rise 4 per cent to €3.4bn and a single-digit increase in profits.

But Mr Pohle warned that uncertainty about the German government's tax plans and exchange rate volatility might damp its performance.

European sales boost Skoda

By Kevin Done, East Europe Correspondent

Skoda Auto, the majority-owned Czech subsidiary of Volkswagen of Germany, increased its net profit by 92 per cent last year to Kč2.24bn ($65m) helped by growing sales volumes in both west and central European markets.

The Czech carmaker is paying its first dividend of Kč170m to shareholders – Skoda is 70 per cent owned by Volkswagen and 30 per cent by the Czech state – since VW acquired management control eight years ago.

Skoda said yesterday that turnover rose last year by 17.3 per cent to Kč105.7bn confirming its position as the Czech Republic's largest company by sales.

It is the biggest Czech exporter and accounted last year for 9.2 per cent of the country's total exports. Skoda said it would increase capital investment to DM3.4bn (€1.74bn, $1.9bn) in the five years from 1999 to 2003 from the DM2.4bn invested in the years from 1991 to 1998.

Skoda is planning to increase capacity and to broaden its product offering with the addition of a third range of larger cars, due for launch in 2001/2002, aimed at taking the company further upmarket.

The investment programme includes plans for a DM1bn plant with a capacity to produce 500,000 1.0-1.4-litre engines and between 300,000 and 500,000 gearboxes a year at Skoda's main Mlada Boleslav site.

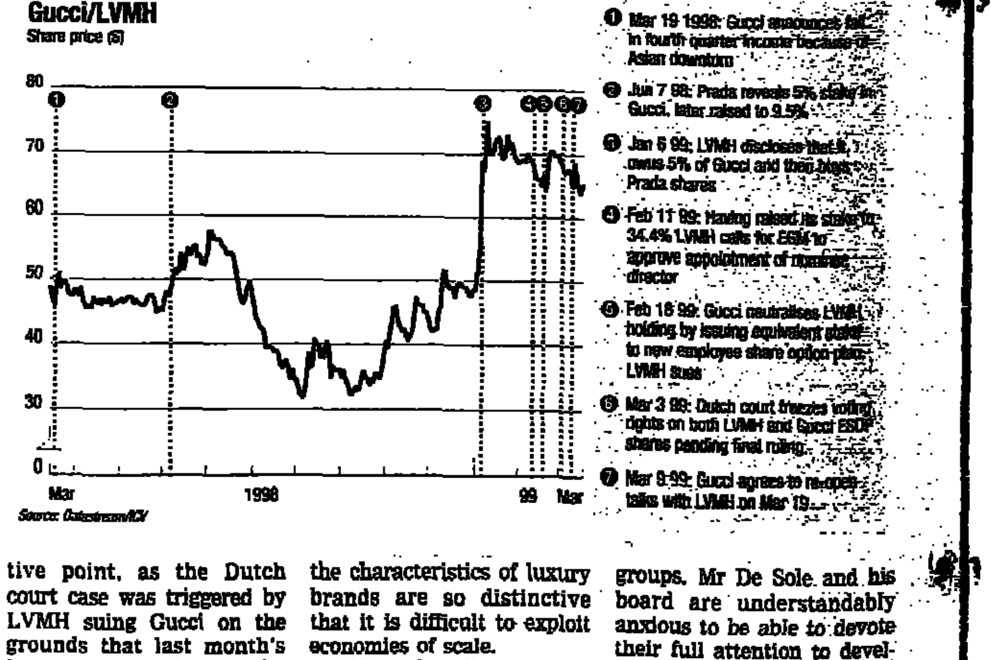
Construction should begin later this year with completion within two years.

Skoda car sales rose by 8.1 per cent to a record 363,500 last year, and the company said it expected sales to rise by a further 6 per cent this year to around 385,000 vehicles, despite the continuing recession in the domestic market.

Sales fell by 1.8 per cent in the first three months to 85,147 largely due to the overall 26.4 per cent decline in new car sales in the Czech Republic.

In search of a cool look

Gucci and LVMH are trying to settle their differences, writes **Alice Rawsthorn**



Ever since early January when LVMH, the powerful French luxury goods group, started to build a $1.4bn stake in Gucci, the Italian fashion house, the two companies have been locked in a ferocious corporate clash.

The rival camps are now trying to lower the temperature before tomorrow's meeting in Amsterdam between Robert Singer, Gucci's finance director, and Pierre Godé, a senior adviser to Bernard Arnault, LVMH's chairman.

LVMH and Gucci arranged the Amsterdam meeting at the behest of a Dutch court, which urged them to settle their differences by negotiation, before it delivers a final ruling on the court battle between them at the end of April. After weeks of acrimony, is a compromise possible?

At first glance, the chances seem slim, not least because, publicly, neither camp has shifted from the negotiating position it adopted before the first round of negotiations broke down in mid-February.

LVMH, which disclosed in early January that it owned more than 5 per cent of Gucci and then raised its stake to 34.4 per cent, maintains that it should be entitled to protect its interests as a substantial minority shareholder.

It is offering to sign a standstill agreement, whereby it would undertake not to increase its holding for a fixed period or seek to appoint a majority of supervisory board members. LVMH, which is advised by Goldman Sachs, also maintains that it will "preserve the independence of Gucci's management".

Mr Arnault hopes that Gucci will agree to co-operate with other luxury labels under his control – notably Louis Vuitton, Givenchy and Christian Dior – and possibly Prada, the Italian fashion house, in areas of common interest such as negotiating property and advertising deals.

Originally Gucci tried to press LVMH into making a 100 per cent bid, as it would be legally obliged to do in most stock markets except Amsterdam, where it is quoted. When LVMH refused, Gucci, which is advised by Morgan Stanley, proposed a more detailed and draconian standstill agreement.

Under its proposals, LVMH could nominate and vote on the appointment of two additional members of Gucci's supervisory board, but could not vote on the other eight members. LVMH's nominees would also be prohibited from discussing or voting on any proposals on issues deemed to present a potential conflict of interest.

Similarly, LVMH would be banned from soliciting any Gucci employees, or forcing it to enter joint trading accords. It would have to agree to allow Gucci to issue new shares. This is a sensitive point, as the Dutch court case was triggered by LVMH suing Gucci on the grounds that last month's issue of 20m shares (the same number as it had bought) to a newly created employee share option plan was unlawful.

Finally, Domenico De Sole, Gucci's president, has rebuffed Mr Arnault's claim that the two companies should be able to benefit from exploiting operational synergies. He argues that the characteristics of luxury brands are so distinctive that it is difficult to exploit economies of scale.

With such a distance, and so much bad blood between them, a compromise seems improbable. However, the two camps agree on one issue: neither side can afford to allow the battle between them to carry on for much longer.

The conflict has already been a huge distraction for senior management of both groups. Mr De Sole and his board are understandably anxious to be able to devote their full attention to developing Gucci's interests again, at a critical time for the global luxury goods market, which is rallying after the Asian crisis.

So far, Gucci's institutional investors have backed Mr De Sole in the battle. But they are unlikely to tolerate the prospect of the company being destabilised for much longer.

NEWS DIGEST

AUTOMOTIVE INDUSTRY

Renault shares slip over possible Nissan link

Shares in Renault slid further yesterday as the market grew jittery over the perceived risks associated with the French carmaker's possible alliance with Nissan Motor, its troubled Japanese rival. The shares closed down 6.2 per cent in Paris at €31.4 after falling over 5 per cent the previous day. Renault said on Tuesday that it was prepared to start exclusive negotiations with Nissan on an alliance that would see it take a 35 per cent stake in the Japanese group's capital. Nissan immediately accepted this offer of exclusive negotiations.

"If Renault is going to invest almost half its market capitalisation in a company and not have conclusive management control, that is a risky proposition," said Gregory Melich, an analyst with Morgan Stanley Dean Witter. "That doesn't mean it will fail, but to succeed they will need large synergies and benefits for both companies." People familiar with Renault's plans indicated that with the company ending the year as a net creditor to the tune of FFr12.65bn (€1.93bn, $2.1bn), its gearing in the event of a deal would reach about 25 per cent. **David Owen, Paris**

ELECTRONICS

US lifts Thomson Multimedia

Thomson Multimedia, the French state-controlled consumer electronics company, yesterday announced its first annual net profit and forecast further progress for 1999. Net attributable profit for 1998 reached FFr102m (€15.5m, $16.9m) on turnover of FFr37bn, against losses of FFr2.78bn on turnover of FFr38.1bn the previous year. Operating profit soared more than seven-fold to FFr1.06bn, as the fruits of cost controls and a strategic repositioning of the product mix towards the top of the market were felt.

The group claimed more than 23 per cent of the US market for televisions and nearly 20 per cent for videos. It said US revenues from new digital products had risen by 15 per cent. Its 1998 US market share for satellite set-top boxes reached 61 per cent. Thierry Breton, chairman, said that the state's holding in the group had fallen to below 67 per cent in the wake of an employee share plan, covering just over 3 per cent of the group's capital. **David Owen**

OIL AND GAS

Price fall rocks Eni

Eni, the Italian oil and natural gas group, yesterday reported a 12.1 per cent drop in net profits in 1998 to L4,500bn (€23.2bn, $2.53bn) as a high level of business integration and higher volumes helped offset somewhat the impact of a 33 per cent fall in crude prices. Operating profits of L7,380bn were down more than 28 per cent because of lower prices, lower volumes and margins attributed to the Asian financial crisis and non-recurring write-downs on mineral assets and petroleum and petrochemical inventories. In common with other integrated oil companies, Eni saw its return on capital employed slip last year, although at 10.7 per cent (12.2 per cent in 1997) it was "maintained at a high level." Net debt fell by more than 12 per cent to L13,690bn. **Robert Corzine**

FRANCE TELECOM

Wireless offsets fixed-line drop

France Telecom yesterday reported a small increase in annual profits as a strong performance from wireless communications helped to offset another fall in revenues from fixed-line telephony. Net income for 1998 at the partly state-owned former monopoly operator edged up to FFr15.1bn (€2.3bn, $2.51bn) from FFr14.9bn, in line with expectations, on revenues ahead just over 5 per cent to FFr161.7bn. Operating income was virtually flat at FFr25.5bn. **David Owen**

PUBLISHING

Acquisitions buoy VNU

VNU, the Dutch publishing group, lifted net earnings 29 per cent last year to Fl 512m (€232m, $253m). The performance, although at the low end of analysts' expectations, was helped by its Fl 4.3bn acquisition of World Directories, which produces alphabetical directories and Yellow Pages in several markets. It was also helped by growth in recruitment advertising, which Joep Brentjens, chairman, said remained encouraging in the first two months of 1999. Sales grew 36 per cent to Fl 5.35bn. The group was on the lookout for "good new acquisition opportunities", he added. **Johanna Stoyva, Amsterdam**

CORRECTION

Credit Suisse Group

Credit Suisse Group's return on equity in 1998 was 11.7 per cent. An incorrect figure was published yesterday.

LEGAL NOTICES

JAPAN OTHER LIFE INSURERS EXPECTED TO FOLLOW EXAMPLE OF PRICE RISE AS BOND YIELDS FALL

Dai-ichi breaks ranks by raising premiums

By Naoko Nakamae in Tokyo

In a sign that Japan's Y190,000bn ($1.6bn) life insurance industry is starting to seek solutions to its many problems, Dai-ichi Mutual will defy industry convention by breaking ranks and raising the premium on its insurance policies written after April 2.

The move is significant, because nearly all Japanese life assurers have been losing money on their core business.

Falling Japanese government bond yields have left them unable to invest their assets to meet their liabilities.

Last November, the eight industry leaders reckoned they would lose more than Y1,000bn on negative yields this financial year.

Furthermore, the sector has been badly hurt by recent slumps in the Japanese stock and property markets, and the appreciation of the yen.

Analysts have long pointed out the need for life assurers to guarantee a more realistic rate on their policies.

Dai-ichi Mutual is the first to announce an effective price rise on future policies under the existing format, although other life assurers have indicated they will follow suit.

Dai-ichi Mutual, Japan's second largest life assurer, will lower the target yields it guarantees on policies with annual dividends from 2.75 per cent to 2 per cent.

Other policies are to be cut from 2.9 per cent to 2.15 per cent.

The challenge now will be to keep selling these products despite the price rise. The industry already suffers from growing cancellation rates, and industry insiders point to the fact that many savings-type products will be facing tough competition from the recently deregulated investment trust market.

But domestic life assurers are caught in a severe dilemma, said one analyst.

"Although they've got to keep selling products, they've also got to do something about their poor, or negative, profitability," he added.

Dai-ichi will be attempting to attract new customers through special value-added features on its policies, it said yesterday.

The company added that these would include nursing services and improved card facilities.

Yasuda to lift its holding in INA Himawari

By Naoko Nakamae

Yasuda Fire and Marine, Japan's second largest property and casualty insurer, yesterday announced it would raise its stake in INA Himawari, the life insurance unit of Cigna International, the US insurance and financial services group.

Yasuda will pay around Y12.6bn ($107m) for an additional 29 per cent holding in the Tokyo-based life insurer. This will take its stake to 39 per cent, which is just under the 40 per cent level at which INA Himawari would become its subsidiary for accounting purposes.

Yasuda and Cigna will sign an agreement to complete the transaction on April 1.

Cigna owns 90 per cent of INA Himawari, but has long indicated it would like Yasuda to own the majority stake in the company. Yasuda has declared its willingness to do so, and plans to own 60 per cent by 2001. But a critical trade issue between the US and Japan has prevented this so far.

Under the World Trade Organisation financial services agreement of 1997, Japanese insurance companies are prohibited from entering the so-called "third sector" which sells products such as medical and cancer insurance. This is an area where foreign insurance companies are the most active and profitable, and Japan has agreed not to deregulate the market until 2001.

INA Himawari, as a subsidiary of Cigna, is classified as a foreign life assurer and is an active provider of cancer and medical insurance. Yasuda has decided to postpone any additional stock purchases since INA Himawari would lose its licence to sell such products, if it becomes a Yasuda subsidiary. Indeed, INA Himawari's close ties with Yasuda Marine have been the focus of attention in the insurance trade debate in the past.

Recently the Japanese insurance sector has been the centre of a war of words, as US and Japanese trade officials have disagreed on whether Japan has met the criteria imposed by the 1997 agreement to deregulate the primary life and non-life insurance sectors.

But yesterday a Yasuda spokesman reiterated the company's resolve to raise its stake in INA Himawari, and said it would be watching developments in the trade dispute very carefully. "Our announcement today is just one step along the way – we intend to achieve a 60 per cent stake by 2001 at the latest," he said.

High-risk strategy begins to pay off off for Indian high-tech pioneer

Ramco software group is becoming a world-class enterprise, writes **Mark Nicholson**

India's old "licence raj" cannot be thanked for inspiring much world-class enterprise. But the discredited and largely dismantled system of centralised industrial licensing can take some credit for inspiring India's first serious entrant into the global market for enterprise resource planning software.

When the Raja family of industrialists in Madras scouted for opportunities to diversify from cement and textiles in the 1980s, the trick was to find a sector that did not need a licence or any attendant political lobbying.

"At that time licensing was intense," says P R Venketrama Raja, founder of Ramco Systems. "We were not interested in going into the politics to get projects, so we decided the answer was new technology and computing, for which you didn't need a licence."

The Rajas also wanted to widen their horizons, having established profitable, but modest-sized cement, yarns and roofing businesses based in Madras, with total turnover of around $250m. "We thought, we're a good national player, how do we become international?" says Mr Raja. "We have the cash, and people, maybe we should invest in computing."

It was similar thinking for similar reasons – the lack of any need for licensing – that fuelled a small explosion of software start-ups across India in the late 1980s and early 1990s, particularly in Bangalore. These, in turn, have matured to turn software into India's most vibrant export industry.

But unlike most of his peers, Mr Raja chose not to enter the sector on the bottom rung by offering basic software services to foreign clients, based largely on the simple advantage of cheap labour. Instead, he formed the nucleus of Ramco Systems 10 years ago, aiming to develop fully-fledged ERP products – among the most complex and commercially risky in the industry. He began with an initial team of 15 software engineers and start-up capital from the other family firms.

ERP products are a suite of programmes or integrated software modules that combine to offer companies a single view of a big enterprise. Generally, they include modules providing anything from stock control, sales analysis, payroll management and monitoring and control of complex manufacturing processes.

"Creating an ERP product is a bigger task than creating an operating system," says Mr Raja. "You need a massive mastery of various disciplines." It also takes faith, since by Mr Raja's reckoning it takes between seven and eight years of development, with a team of several hundred software engineers, to create the architecture for a fully developed ERP product. This period is one mostly of investment and rarely of reward – which means only companies with existing cash flow or resources can contemplate such things.

> 'It was a massive enterprise that no-one thought a company from India could manage'

"You can't start up an ERP company just with a garage full of a few bright software engineers," says Mr Raja. "Then, at the end of it, you still don't know if you have created a current, acceptable product. So you have to have great foresight, or luck, or a bit of both."

Early versions of Ramco's product entered the market in 1994. By this year, turnover from early sales had reached $30m, the workforce had grown to 1,200, and the company is now marketing a refined version of its ERP product, Ramco Marshal 3.0. "It was a massive enterprise," says Mr Raja, "that no-one thought a company from India could manage."

Altogether, he says the project has cost $40m to develop, drawn chiefly from some debt and internal revenues from the parent Ramco businesses – around 12 per cent of the likely cost of such a project in developed countries. The Microsoft-based product offers the panoply of ERP applications, including plant maintenance, inventory control, accounts, process planning and controls, sales forecasting and analysis and personnel management.

Ramco has adapted the product for use anywhere from open-cast mining to managing power stations. And, according to Mr Raja, the company is beginning to find itself shortlisted by clients alongside some of the big ERP suppliers.

The ERP market is worth tens of billions of dollars globally, dominated by SAP, the German software house, followed by Oracle and PeopleSoft of the US and BAAN of the Netherlands.

So far, among more than 80 clients for the product, Marshal has been adopted by Bemis, the biggest flexible packaging maker in the US, which is using the Ramco logistics system in 15 of its 40 US plants. Six months ago ETA, the Swiss watchmaker, also installed Marshal in 12 of its factories.

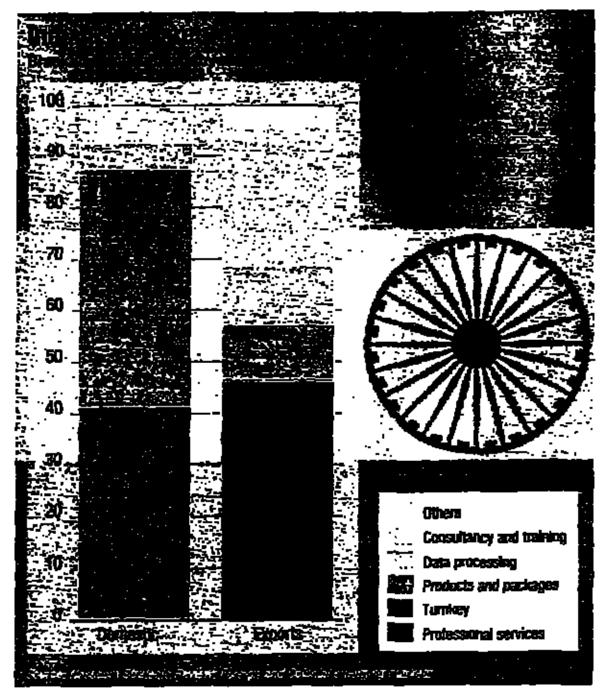
Ramco Systems' turnover this year was twice last year's. Mr Raja believes it can double again for 1999-2000 to $55m-$60m, sustaining similar growth until turnover hits around $200m.

By the time the company hits sales of around $80m, he suggests, it would look to demerge from its parent Ramco Industries, a Rs5bn ($118m) capitalised business making roofing sheets, and list separately, on the Indian market and in the US, through an ADR offering.

The US listing is partly motivated by the need to be able to offer its employees stock option income in hard currency – an increasingly fashionable perk in the Indian software sector to keep staff loyal.

Having developed its product, Ramco Systems is now focused on marketing it, and is looking to raise between $15m and $25m from venture capital funds and elsewhere, to expand its international presence.

"Everyone is watching us very closely to see whether all this investment can actually be turned to profit," says Mr Raja. The Indian stock market clearly believes so. The share price of Ramco Industries has been buoyed recently by speculation over an eventual demerger.



HK banks face more turmoil

By Louise Lucas in Hong Kong

Hong Kong banks have weathered the storms of the Asian financial crisis better than their Singaporean counterparts, but are poised for another tough year in 1999, according to Fitch IBCA, the ratings agency.

The Asian financial crisis caused non-performing loans at banks across the region to rise sharply.

Last year, the average level for Singaporean banks was 13 per cent, reflecting their exposure to crisis-torn countries like Indonesia and Malaysia; whereas for local Hong Kong banks the figure was 7 per cent at the end of 1998.

However, Hong Kong faces more bleak spots this year. The economy shrank an estimated 5.1 per cent last year and the full impact has yet to feed through to the corporate sector and its ability to repay loans.

Meanwhile, unemployment is rising which will affect mortgage repayments and consumer loans.

Hong Kong also faces more unravellings across the border. The failure of Guangdong International Trust & Investment Corp, the investment agency that folded in October last year with US$4.37bn worth of debts, spooked bankers who had taken government backing to mean risk-free lending.

Since the collapse of Gitic other Chinese entities have defaulted on payments or been forced by growing debt into massive restructurings. However, Fitch IBCA reckons the total China exposure of local Hong Kong banks is just under 5 per cent, suggesting further fall-out will be manageable.

Hong Kong banks, like those in Singapore, are seen as strongly capitalised and well-managed. Fitch IBCA notes that banks in Hong Kong have raised their capital ratio in recent years and all now boast capital ratios higher than the minimum 8 per cent – indeed, the average is now more than double that minimum.

David Marshall, managing director of Fitch IBCA, added that most loans in Hong Kong are generally supported with collateral. Mortgage lending is a high proportion of Hong Kong bank lending, and medium sized companies also generally put up security.

Mr Marshall said one small bank had more than 90 per cent of its loans securitised, although he added that such a high level would be unusual.

Lowered credit ratings throw spotlight on high-yield bonds

As Nissan Motor joins the 'junk bond club' with a Moody's downgrading, investors in Japanese securities are hoping there may be positive side-effects for liquidity

By Naoko Nakamae

Nissan Motor joined one of Japan's more controversial clubs last week. Amid the flurry of speculation about its future, it was relegated to "junk bond" status by Moody's, the US credit rating agency.

The move prompted predictable public protests from the government.

Less visibly, however, it is also creating a new business opportunity.

For Nissan is only the latest in a long list of Japanese companies who have recently been downgraded into this club.

With the number of club members likely to swell even further soon, the question preoccupying investors is whether this will lead to the creation of Japan's first liquid and credible high-yield bond market.

There are certainly factors in its favour. Government bond yields have seen a sharp decline recently, while credit spreads among corporate bonds have polarised.

Though bonds with high credit ratings continue to track JGB yields relatively closely, lower-rated bonds have seen a pronounced widening of yield spreads, making this an area of particular interest for investors looking for extra yield.

Furthermore, there are plenty of potential investors out there.

Nippon Life, the world's largest life assurer with Y40,000bn ($339bn) of assets, is certainly interested.

"Yes, we'll invest in high-yield debt, as long as we feel the yield reflects the level default risk of the company. Currently, we're not investing in bonds we rate BB or less, but I don't think it's something we shouldn't do," said Hidetaka Kawakita, general manager in the treasury and capital market department.

Despite such interest, the Japanese high-yield debt market is still dominated by individual, rather than institutional, investors.

Although there is growing interest from some of the big foreign investors used to the high-yield markets of the US and Europe, those involved are generally in the smaller bracket.

So why is this market unable to capitalise on all the potential demand?

One difficulty is the lack of a coherent and credible credit-rating system. While analysts believe the Japanese market could develop along the lines of the US market, they agree that a prerequisite for growth is an improvement in Japan's credit-rating system.

At present, domestic agencies are perceived as being too lax, and foreign agencies still lack credibility in the Japanese marketplace.

"The quality and amount of credit analysis is minute – there is a lot of work to be done," said one analyst at a foreign securities company.

"What's more, the level of corporate disclosure needs to be raised for investors to really start investing large sums of money in high-yield corporate bonds."

Furthermore, the prolonged economic recession is causing credit ratings to fluctuate widely.

Nissan Motor, for example, has had its rating dropped twice, to "junk bond" status, in the space of six months.

"Credit ratings aren't reliable," said one investor. "They are extremely volatile – many companies have been downgraded several times and they still face further downgrades."

Dai-ichi Life, Japan's second largest life assurer, is watching the market closely, but points to its lack of liquidity.

"The market lacks depth," said Takashi Kawashima, a manager in the investment planning department. "It's difficult even buying BBB bonds. I think the market will take some time to really develop."

Development of this market will hinge on supply, as well as demand, factors. Questions remain whether low-rated Japanese companies are prepared to pay such a large premium to borrow money – many have never seriously considered themselves as having junk bond status and feel they have merely found themselves in this position due to circumstances.

"But all this could be reversed if the economy recovers," added Mr Kawashima.

If ratings improve, indeed, junk bonds may gradually lose their "junk" status, and investors could end up with huge risk premiums for relatively little risk.

That hope may offer Nissan a modicum of cheer this week.

NEWS DIGEST

MALAYSIA

Sime Darby back in black with $136m net profit

Sime Darby, the Malaysian multinational often seen as a bellwether of the domestic economy, has returned to the black, posting a net profit of M$518m (US$136.3m) for the six months to December 31 last year, compared with a net loss of M$676m a year earlier. For the full year ended June 30 last year, the net loss was M$541m, largely on account of losses suffered by Sime Bank, the banking arm the company has sold.

Sime Darby said profits were helped by buoyant prices for palm oil, which was the biggest contributor to earnings, better income from investments by the insurance unit and the sale of assets in the US. Revenue fell 22 per cent to M$4.9bn as the sluggish construction and logging sectors badly affected sales of heavy equipment.

Weak consumer sentiment also hurt sales of houses and cars and the oil and gas unit suffered losses. Its tyre unit also did poorly and the company is trying to increase exports.

Analysts said the economy was still weak and the company's net profit might total less than M$700m in fiscal 1998-1999. Trading in Sime Darby's shares, which closed at M$3.92 on Tuesday, was suspended yesterday. **TJ Tan, Kuala Lumpur**

BANKING

Mitsubishi arms to merge

Bank of Tokyo-Mitsubishi and Mitsubishi Trust & Banking agreed yesterday to merge their securities subsidiaries by the end of June, the Nihon Keizai Shimbun reported in the Wednesday evening edition, quoting sources from the two banks.

The move is designed to enhance the competitiveness of the wholesale brokerage businesses for corporate clients, including underwriting of corporate bonds, which will be the main operation of the new entity.

Tokyo-Mitsubishi Securities will buy the operations of Mitsubishi TB Securities, a Mitsubishi Trust unit. Mitsubishi Trust plans to take a 10 per cent stake in the new firm.

Tokyo-Mitsubishi Securities had a total of about Y3,120bn ($264.6bn) in assets as of the end of last September, while Mitsubishi TB Securities held about Y250bn.

Meanwhile, Sumitomo Bank and Sumitomo Trust & Banking have decided to integrate their securities units into a joint venture to be set up by Sumitomo Bank and Daiwa Securities Co. **AP-DJ, Tokyo**

SOUTH KOREA

Microsoft pricing probe

The South Korean government has launched an investigation into allegations that Microsoft is selling the Windows 98 operating system in South Korea at excessively high prices. If Microsoft is found to have engaged in unfair business transactions, the Fair Trade Commission can impose a penalty equivalent to up to 2 per cent of the US company's annual Korean sales. **AP-DJ, Seoul**

RETAILERS CONGLOMERATE REPORTS RISE IN ANNUAL PRE-TAX PROFITS FROM £520M TO £629M

Kingfisher to strengthen European presence

By Peggy Hollinger

Kingfisher, the UK retail conglomerate, yesterday set out its strategy to build leading positions in European markets as it reported annual profits at the top end of expectations in a presentation beamed by satellite from France.

Sir Geoffrey Mulcahy, chief executive, was in Paris to announce a 15 per cent rise in pre-tax profits before exceptionals to £582.5m ($946m) for the year to January 30.

Describing the past 12 months as a "milestone year of strategic development", Sir Geoffrey said Kingfisher intended to use its do-it-yourself and electricals businesses to grow in European markets other than France and the UK.

Following the merger late last year of Kingfisher's B&Q home improvements chain with Castorama of France, some 40 per cent of group sales were derived outside the UK, he said.

Sir Geoffrey said Kingfisher was "in contact with a number of the leading players" in the German do-it-yourself market. "But it is difficult to say whether anything will happen," he added.

Sir Geoffrey refused to comment on speculation of a merger or takeover possibility in the UK. But he said the group had plans to open some 103 new stores, mainly in the UK, creating some 4,800 full and part-time jobs.

Sir Geoffrey added that Kingfisher was concentrating on delivering the benefits of the merger with Castorama, which was progressing well. He was confident there was "more upside" than the expected £50m in merger benefits, but "it is still early days".

Sir Geoffrey's comments came as the group reported pre-tax profits of £629.3m, helped by £46.8m in exceptional gains, up from £520m last time. Sales rose 16 per cent to £7.46bn.

All businesses increased market share, he said, against a generally difficult retail market, particularly in the UK.

B&Q and Castorama suffered a weaker second half, but the UK chain increased like-for-like sales by 5.5 per cent. B&Q returned operating profits of £188.1m, up from £161.6m, on sales 8.8 per cent higher at £1.9bn. Castorama contributed one months' profit of £3m and sales of £147m.

In electricals, Comet in the UK suffered flat profits of £33.4m although sales increased by 5.1 per cent to £862.4m. Like-for-like sales fell by 0.6 per cent. Darty in France increased profits by 7.6 per cent to £115.1m, on sales 9.3 per cent higher at £1.12bn.

Woolworths benefited form a strong Christmas to return profits 8.8 per cent higher at £114.4m, on sales 6 per cent ahead at £1.8bn.

Superdrug increased profits by £100,000 to £41.1m on sales 6.6 per cent up at £798.6m.

Sir Geoffrey said he expected the retail market to remain highly competitive, a feature which would drive consolidation in the UK and the rest of Europe.

Orange to launch enhanced multi-media services

By Christopher Price in Hanover and Alan Cane in London

Orange, the UK mobile phone group, is preparing to launch the most comprehensive range of multi-media services available in the UK cellular market, including news, banking, entertainment, traffic and travel information.

Demand for the service, to be introduced this year, will give an indication of the public's appetite for information on the move and of the likely success of "third generation" mobile services, expected to become available by 2003.

Subscribers to the new Orange service will be able to receive information on their cellular phones from a range of content providers, including Independent Television News and Associated News Media.

All the UK's mobile operators have been developing extended services – Cellnet and Barclaycard, for example, provide banking by phone – but Orange's proposed range will be the most comprehensive.

Hans Snook, Orange managing director, has already promised that Orange will be the first company to launch a mobile "video-phone", allowing customers to take part in video-conferences early next year.

It is already testing Wildfire, an electronic assistant that communicates with the customer through a synthesised voice.

The new information services have been made possible by the advent of Wireless Application Protocol (Wap), a new radio technology that allows multi-media services to be delivered to mobile phone screens.

The technology will also make it possible for users to access the internet to retrieve electronic mail.

Only subscribers with a phone using Wap technology will be able to use the service. These phones are expected to become widely available in the coming months.

For its news service, Orange has struck an exclusive deal with ITN to take news headlines and stories from the organisation. NatWest will provide a business banking service that will enable customers to check accounts for balances, payments and cheque clearances.

Association News Media will use its Thisislondon.com website to provide restaurant reviews, cinema and theatre listings, as well as London news. Integrated Traffic Information Service is to provide traffic and travel reports. Travel information on flights is also being supplied by web service Thetrip.com, while Lastminute.com will provide details of late availability for a variety of trips.

Hans Snook: Orange will be the first company to launch video-phone Tony Andrews

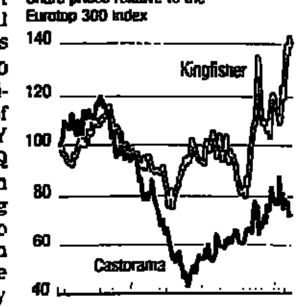
COMMENT

Kingfisher

Talk of Kingfisher's 10th birthday – in name at least – and milestones passed might suggest that the UK retail group is about to rest on its laurels. It cannot afford to do so. One reason was evident in the performance of Castorama, the French DIY group that Kingfisher's B&Q has merged with. Although Castorama pushed operating profits up 20 per cent, to €188m ($205m), its own restructuring and a more buoyant French economy should have delivered more. Kingfisher is relaxed about this, as the deal itself caused some disruption. But with Castorama valued at 16 times 1998 operating profits, a big improvement clearly needs to be wrung out. That should be possible. After all, B&Q made 43 per cent more profit last year on turnover more than 10 per cent below Castorama's €3.1bn.

Kingfisher/Castorama

Share prices relative to the Eurotop 300 index



Source: Datastream/ICV

But Kingfisher's fancy rating of about 25 times forecast 1999 earnings owes as much to strategy as it does to the market's faith in its nitty gritty retail management. With 40 per cent of its sales outside the UK, it is deemed to have joined Europe's retail super-league, earning comparisons with Ahold and Pinault-Printemps-Redoute. This has helped to lever it free from a UK retail sector, whose performance has only recently been resuscitated by interest rate cuts.

As in the early part of its decade, Kingfisher is dedicated to expansion. The risks of this strategy are not in the price. But its bold investments have a habit of winning longer-term advantage.

Smiths Industries

Smiths Industries, along with GKN, belongs to that select band of UK engineers whose shares have regained last year's highs. However, yesterday's lacklustre results, which knocked the shares back 10 per cent, have put a large dent in one of the sector's most prominent recovery plays. Normally a company that cruises in at the top end of expectations, Smiths has been slapped down for merely landing in line.

Also worrying was an unflattering profit mix. With medical and industrial both flat, Smith's growth depends rather too narrowly on its aerospace wing. Defence sales look strong but the civil aerospace market is forecast to peak next year. To maintain its double-digit earnings record, Smiths is likely to need a chunky acquisition. With interest cover of 33 times, it can easily afford to spend £1bn or so.

Virgin injects £9.7m into cola business after losses

By John Willman, Consumer Industries Editor

Richard Branson's Virgin Group has injected £9.7m into its cola business, after making a £7.24m loss in the year since it ended its partnership with Cott, the Canadian company that supplies own-label soft drinks to supermarkets.

Virgin Cola's loss for the year to January 28 was largely the result of costs incurred in ending its exclusive production agreement with Cott. Last year, it made a profit of £116,846.

During the year, Virgin raised its share of the UK market from 3.6 per cent to 4.3 per cent, according to AC Neilsen, the market research organisation. The growth – largely at the expense of own-label colas – was in a market that shrank 2 per cent.

However, the amount owed to Virgin Cola by trade debtors has risen from £1.9m to £4.6m – 20 per cent of the company's turnover. Gross profit fell from £3.81m to £2.36m on turnover up 8.6 per cent to £22.99m.

Four years ago, Mr Branson launched a campaign to take on Coca-Cola and Pepsi-Cola in the global soft drinks market.

Virgin Cola has claimed success in overhauling Pepsi in the UK on several occasions, including last summer, when it said it outsold the number two brand, if the Pepsi Max diet variety was excluded.

Nielsen figures, however, show Coke and Pepsi have retained their market shares of about 53 per cent and 16 per cent respectively in the past year.

Monthly figures show fluctuations related to promotion by Virgin and its main competitors.

Premier stays on track

By Susanna Voyle

Premier Farnell, the catalogue-based electronic components distributor, insisted it was on track for recovery with its new strategy, though its markets remained tough.

The group, which cut its interim dividend by 30 per cent, yesterday announced annual pre-tax profits down 28 per cent at £100.4m ($162m).

The results were in line with expectations and the shares dipped 2p to 192p.

As indicated at half-way, the final dividend is also cut by 30 per cent to 5p, for a total of 9p (12.9p).

John Hirst, chief executive, said depressed markets in the UK and US appeared to have bottomed out. But the group's plans for the coming year assumed there would be no significant improvement.

"There is no disappointment in these results," said Mr Hirst. "What people have to remember is that this is still a very profitable business with a good cash performance."

Mr Hirst, appointed last summer, said the blueprint for recovery he set out in January, combined with a series of management changes, would lead to growth over the next three years.

He is planning a £45m capital investment over the period, along with an extra £15m annually for marketing.

Turnover in the year to January 31 fell from £743.6m to £705m. Earnings per share fell from 25.3p to 16p.

TRANSPORT GROUP ADVANCES 40% AS DEMAND GROWS FOR IMPORTED COAL

Clydeport plans expansion

By Susanna Voyle

Clydeport, the Scottish ports operator, yesterday announced record profits and ambitious plans to develop the business with two big capital projects.

Tom Allison, chief executive of the group which runs the ports of Hunterston, Greenock and Glasgow, said he wanted to build a new roll-on, roll-off ferry terminal in Glasgow to capitalise on the growing trade with Ireland, and was planning a £250m-£300m ($400m-$480m) entertainment and leisure development on the city's waterfront.

Mr Allison, appointed 18 months ago to shake up the former port authority which was privatised in 1992, said pre-tax profits for 1998 rose 40 per cent to £11.02m. The results were ahead of City expectations and the shares, which had risen sharply ahead of the results, fell 2p to 224½p.

Profits were boosted by demand for imported coal, which is 10 per cent cheaper than domestic coal.

Hunterston, the deep-water specialist port bought for £5.6m at the end of 1993, saw total tonnage increase 80.1 per cent to 2.9m tonnes. Clydeport supplies coal to Eastern Group and Scottish Power.

Euan Davidson, port operations director, said imported coal was low-sulphur, so generators could meet targets to cut emissions without expensive modifications to their plant. The coal, which is imported from South Africa and South America, costs about 110p a gigajoule, against 124p for UK coal.

However, the group warned that growth this year would not be at the same level as 1998 as the contracts between English generators and domestic coal producers would postpone a further "step uplift" for about two years.

Mr Allison said he had finished a nine-month review of the business and had decided to step up the process of vertical integration – moving into shipping and road haulage.

The group will concentrate investment in the ports business, with the £15.7m cash held and further cash flow being ploughed straight back into the business.

Mr Allison said the creation of the new two-berth ferry port which would attract both freight and passenger traffic, could be completed by the middle of next year.

Turnover rose 28 per cent to £26.3m. Operating profit was £10.31m (£7.45m).

Analysts are forecasting 1999 pre-tax profits of £11.8m, leaving the shares trading on a prospective price/earnings ratio of 10.9, a discount to competitors such as Associated British Ports and Mersey Docks.

Devro's shares drop on warning

By James Buxton in Edinburgh

Shares in Devro, the sausage casing manufacturer, fell near their all-time low yesterday, after the Glasgow-based company warned that half-year profits would be well below 1998's £23.7m ($38m).

The shares closed down 40p at 143½p, against last year's all-time high of 545½p.

Announcing results for 1998, Graeme Alexander, chief executive, said the company was still suffering from the sharp drop in demand in Russia and south-east Asia. Although the company's direct sales to Russia have improved slightly this year, sales to US food manufacturers for export to Russia showed no recovery.

"Russia makes up about 20 per cent of the world market for cellulose casings, which are used to make US-style skinless Frankfurters," Mr Alexander said. "The whole casings industry has invested heavily in new capacity to serve it and there is now 25 per cent overcapacity." The company had also suffered from the deterioration in some Latin American countries in the third and fourth quarters.

Devro is implementing a restructuring announced last November to save £4m this year. But it needed to eliminate another £15m from its cost base and aimed to do so within two years, said Bruce Farmer, chairman.

Pre-tax profits fell from £58m to £36.1m, after an exceptional reorganisation charge of £4.1m.

Bid battle for Wace escalates

By David Blackwell

The bid battle between two US companies for control of Wace, the digital imaging group, escalated yesterday.

Schawk, which emerged as a white knight in January when Wace was under siege from UK rival Photobition, raised its offer by 10p a share to 80p, valuing the ordinary shares at £63.3m ($102m).

Almost immediately Applied Graphics Technologies, which a week ago offered £57m, responded that it was "actively considering increasing its offer."

Wace shares closed up 6½p at 81½p.

Phillips and Drew Fund Management, which owns 6.4 per cent of the ordinary shares and 19 per cent of the preference shares, has undertaken to sell its ordinary shares to Schawk. That would give Schawk, which has acquired a similar sized stake, about 14 per cent of the ordinary shares. However, Phillips and Drew will not be bound by the undertaking if another bidder offers 88p or more a share. Schawk's bid is recommended by the Wace board.

Wace shares fell to 17½p in October after the group ran into problems in the US and breached loan covenants.

Schawk, listed on the New York Stock Exchange and advised by Lehman Brothers, has not changed its offer of £39.2m for the preference shares. AGT, listed on Nasdaq and advised by Lazard Brothers, has not yet made an offer for these.

RESULTS

		Turnover (£m)		Pre-tax profit (£m)		EPS (p)		Dividends: Current payment (p)	Date of payment	Corresponding dividend	Total for year	Total last year
Andrews Sykes	Yr to Dec 26	83.8	(59.9)	12.1	(11.7)	9.67†	(9.98)	2.4	May 28	2	3.6	3
Brandon Hire	Yr to Dec 31	27.7	(23.4)	4.37L♠	(2.38)	15.7L	(10)	2.15	Apr 30	2.15	3.35	3.25
Brixton Estate	Yr to Dec 31	77.6☐	(76.4☐)	40.5♥	(37.8♥)	16.1†	(13.2)	6.235	June 15	5.05	9.7	9.3
Chelsea Village φ	*6 mths to Dec 31*	*45.8*	*(36.6)*	*0.421*	*(0.215)*	*0.27*	*(0.12)*	-	-	-	-	-
Chesterton Intl	6 mths to Dec 31 ★	82.9	(89.1)	0.959	(1.72♥)	0.7	(1.4)	nil	-	nil	-	nil
Clydeport	Yr to Dec 31	26.3	(20.6)	11	(7.85)	20.15	(18.95)	4.5	May 19	3.8	6.5	5.525
DCS	Yr to Dec 31	110.2	(59.8)	7.35	(4.92)	21.63†	(15.68)	1.5	May 24	1.25	2.75	2.25
Devro	Yr to Dec 31	263.9	(284.5)	36.1♠	(58)	14.4	(23.6)	6.2	-	6.4	9.5	9.5
Gibbs & Dandy	Yr to Dec 31	38.5	(38.6)	1.47	(1.27♠)	13.1	(10.8)	2.8	May 7	2.4	4.5	4
Hepworth	Yr to Dec 31 ★	660.9	(691.8)	64.5	(11.7L♠)	18.3	(8L)	6.25	July 9	6	9.25	9
Intercapital	*Yr to Dec 31* ★	*165.5*	*(189)*	*22.7L♠*	*(3.14L♠)*	*13.94L†*	*(4.87L)*	*nil*	-	*nil*	*nil*	*0.75*
Intercare	Yr to Dec 31 #	73.6	(56.3)	3.14♠	(1.64♠)	6.7	(1.6)	3.5	June 18	3.2大	4.4	4大
Kier	6 mths to Dec 31	462	(336.2)	4.7	(3.9)	10.5	(8.2)	3	May 21	2.6	-	8
Kingfisher	Yr to Jan 30	7,458	(6,409)	629.3♥	(520♥)	32.3	(28.7)	9.25	July 1	8.25	13	11.5
Leslie Wise	Yr to Nov 30	52.5	(72.5)	11.4L♠	(1.11♠)	32.56L	(1.98)	nil	-	0.5	nil	1.5
Longmead φ	6 mths to Jan 30	1.75	(2.06)	0.012	(0.236)	0.26†	(6.33)	0.5	Apr 30	0.25	-	2.25
M-R	6 mths to Dec 31	24.3	(20.8)	1.38	(3♥)	1.8‡	(3.8)	1.35	Apr 23	1.35	-	2.7
Oriflame Intl	*Yr to Dec 31*	*239*	*(252.8)*	*4.42♠*	*(39♠)*	*nil*	*(31.3)*	*3.5*	*May 26*	*11.97*	*8*	*15.925*
Premier Farnell	Yr to Jan 31	705	(743.6)	100.4♠	(139)	16	(25.3)	5	July 1	7.2	9	12.9
Rea Brothers	Yr to Dec 31	-	(-)	3.63	(3.53)	5.33	(4.92)	1.1	May 7	0.65大	1.75大大	1.25大
Regent Inns	6 mths to Jan 2	28.4	(25.4)	6.38♥	(9.04♥)	6.1	(9.2)	1.43	Apr 28	1.3	-	3.7
Shield Diagnostics	9 mths to Dec 31 ☆	5.26	(7.43)	1.34L	(0.494♥)	6.43L	(2.29)	-	-	-	-	-
Sirdar	6 mths to Dec 31	26.3	(30)	3.48♥	(3.23)	4.44	(4.14)	1.85	May 4	1.85	-	5.65
Smiths Inds	6 mths to Jan 31	606.7	(553.1)	99.1	(89.3)	22	(19.7)	7.4	June 4	6.75	-	19.65
Toad	*38 wks to Dec 22* ☆	*25.1*	*(9.59)*	*0.43♠*	*(2.65L♠)*	*0.76†*	*(9.46L)*	-	-	-	-	-
Xaar	Yr to Dec 31	1.5	(4.37)	4.63L	(0.104)	8.9L†	(0.5L)	-	-	-	-	-

Investment Trusts		NAV (p)		Attributable Earnings (£m)		EPS (p)		Current payment (p)	Date of payment	Corresponding dividend	Total for year	Total last year
Dresdner RCM Small	Yr to Jan 31	186.5	(223.9)	0.416	(0.349)	3.15	(2.64)	1.6	Apr 1	1.3	3	2.6
JF Euro Utilities	6 mths to Jan 31	307.27	(193.99)	0.135	(0.245)	1.27	(2.3)	2.3	Apr 15	2.3	-	5.9

Earnings shown basic. Dividends shown net. Figures in brackets are for corresponding period. ☐ Net rental income. ♠After exceptional charge. ♥After exceptional credit. †On increased capital. #Comparatives for 14 months to Dec 31 1997. 大Foreign income dividend. 大大Includes FID element. ★ Comparatives restated. ‡On reduced capital. ☆ Comparatives for year to March 31 1998. φAim stock.

NEWS DIGEST

HEALTHCARE

Shield raising £12m to help fund Axis merger

Shield Diagnostics is to raise £12m ($19m) through a rights issue to help fund its merger with rival biotechnology company Axis Biochemicals of Norway. Under revised terms announced yesterday, Shield shareholders will hold 54.4 per cent of the enlarged group, down from the 62 per cent envisaged when the deal was mooted in January.

This is partly because Shield is now offering 1.25 new shares for every share in Axis rather than the one for one initially planned. The number of Axis shares in issue is also to increase by about 6 per cent because of the exercise of options by its management. This will result in a capital injection of about £3.4m.

Shares in Shield fell 25p to 457½p yesterday, valuing Axis at about £80m. They closed at 515p, down 5p, on the day the merger was announced. Analysts said the shares fell yesterday because the terms had become a little less favourable to Shield, and because a rights issue would probably be priced at a significant discount, reflecting difficult market conditions for the sector.

Shield, which has changed its year end, made pre-tax losses of £1.34m on sales of £5.26m in the nine months to December 31. This compares with profits of £494,000 on sales of £7.43m in the year to March 31. **Virginia Marsh**

SUPPORT SERVICES

Shift to IT services helps DCS

DCS showed the benefits yesterday of its shift from software sales to IT services as it reported a 49 per cent jump in 1998 pre-tax profits from £4.92m to £7.35m.

Tim Robinson, the chief executive who took over a year ago, said: "We have moved from being a UK-based supplier of systems primarily to the automotive sector into being an international provider of IT solutions with a strong European base."

Since taking over he has concentrated on developing a new business model for DCS, which began as a Nigerian electricity supply business. He aims to make DCS a one-stop IT shop, cross-selling services such as outsourcing, applications management and e-business capabilities as well as software to its existing 560-strong client base, and others.

For the first time, more than half of revenues from DCS's automotive division came from services. The division, which was once considered a potential disposal candidate, is now regarded as a core part of DCS. Automotive revenues contributed £37.6m (£22.2m) to the group total of £110m (£59.8m). Outsourcing revenues, which grew from £7.4m to £18.6m, now account for 17 per cent of the total. **Caroline Daniel**

HOUSEHOLD GOODS

Russian downturn hits Oriflame

Tough trading conditions in Russia and the Ukraine contributed to a near 90 per cent drop in 1998 annual profits at Oriflame International, the door-to-door cosmetics company.

Pre-tax profits in the year to December 31 fell 89 per cent to £4.42m after £21.1m in exceptional restructuring costs arising from a write-down on currency losses and charges to reduce the group's cost base. Operating profit fell 43 per cent to £24.4m on reduced turnover of £238.9m (£252.8m).

Robert af Jochnick, chairman, said Oriflame would benefit from being "slimmed down". However, he did not expect a complete recovery for two to three years. **Dan Bilefsky**

BIOTECHNOLOGY

Core drug gets US approval

Core Group, the biotechnology company specialising in drug delivery systems, has won US approval to start testing its controlled release vaginal thrush treatment. US approval of the treatment as an investigational new drug means the company can complete Phase II and III trials within 18 months. Jim Pickard, chief executive, said the approval gave further confirmation of the efficacy of the company's controlled release system. Core reports full-year results next week.

Prices for electricity determined for the purposes of the electricity pooling and settlement arrangements in England and Wales.

½ hour period ending	Provisional Price for Trading on 18.03.99: Pool purchase price £/MWh	Final Prices for Trading on 16.03.99: Pool purchase price £/MWh	Pool selling price £/MWh	TS use of system price £/MWh
0030	17.54	11.81	11.81	0.00
0100	17.54	23.99	24.57	0.72
0130	17.54	23.99	24.57	0.72
0200	17.54	23.99	24.57	0.72
0230	17.54	23.99	24.57	0.72
0300	17.54	23.99	24.57	0.72
0330	17.54	23.99	24.57	0.72
0400	17.54	23.99	24.57	0.72
0430	9.28	20.43	21.00	0.72
0500	9.29	9.29	9.29	0.00
0530	9.29	9.29	9.29	0.00
0600	10.98	9.29	9.29	0.00
0630	14.10	17.50	18.08	0.72
0700	14.64	20.10	20.68	0.72
0730	23.29	20.10	20.68	0.72
0800	23.29	19.64	20.22	0.72
0830	44.11	59.69	60.27	0.72
0900	44.12	59.69	60.27	0.72
0930	44.12	27.91	28.49	0.72
1000	44.12	26.21	26.79	0.72
1030	34.25	23.16	23.74	0.72
1100	34.25	23.16	23.74	0.72
1130	34.25	23.16	23.74	0.72
1200	34.25	24.24	24.82	0.72
1230	34.24	24.24	24.82	0.72
1300	34.24	24.24	24.82	0.72
1330	20.76	26.21	26.79	0.72
1400	24.80	26.21	26.79	0.72
1430	24.80	26.21	26.79	0.72
1500	24.80	26.21	26.79	0.72
1530	24.80	26.21	26.79	0.72
1600	24.80	26.21	26.79	0.72
1630	24.80	25.31	25.89	0.72
1700	24.80	25.32	25.90	0.72
1730	21.02	37.54	38.14	0.72
1800	21.02	64.38	65.01	0.72
1830	47.71	64.43	65.07	0.72
1900	68.55	73.32	73.96	0.72
1930	68.57	64.31	64.91	0.72
2000	60.54	55.34	55.92	0.72
2030	52.88	33.16	33.74	0.72
2100	34.32	21.09	21.67	0.72
2130	20.75	21.09	21.67	0.72
2200	21.02	20.04	20.62	0.72
2230	23.29	17.75	18.33	0.72
2300	23.29	9.29	9.29	0.00
2330	23.29	25.26	25.84	0.72
2400	9.29	25.26	25.84	0.72

Prices are determined for every half-hour in each twenty-four hour period. Prices are in pounds per megawatt-hour rounded to two decimal places. To convert prices to pence per kilowatt-hour the decimal point should be moved one place to the left, eg £36.89/MWh becomes 3.689p/kWh. Provision for the determination of pool prices is made in the Pooling and Settlement Agreement which governs the operation of the electricity pool in England and Wales. [illegible]

EURO PRICES

EQUITIES

Rising oil prices fuel fears of inflation

EUROPEAN OVERVIEW

By Florian Gimbel

European shares pared early gains yesterday as Wall Street shied away from crossing the 10,000-point Rubicon.

Additional downward pressure came from rising European bond yields as higher oil prices rekindled fears of inflation.

But analysts expect the Dow to go higher in the run-up to Friday's "triple witching", the simultaneous expiry of stock index futures, options and options on individual stocks.

Activity was largely driven by a spate of company news, leaving the FTSE Eurotop 300 index 9.4 lower. The only conspicuous sector performance came from oil stocks, which continued to benefit from the recovery in world oil prices.

Leading exporter Saudi Arabia said it would curb supplies as of April, leaving benchmark Brent crude futures 27 cents higher at $12.95. Shares in France's Elf ended 4.29 per cent higher, but Total only rose by 1.22 per cent on disappointment over its 1998 dividend of two euros a share.

Yesterday's loss leader was automobiles, with Renault dropping 6.18 per cent to €31.40 on doubts over its controversial alliance with Nissan. BMW, however, bucked the trend, ending 2.74 per cent higher ahead of its 1998 results today.

The financial sector also put in a weak performance with Dresdner closing down 4.4 per cent on profit-taking. Its shares had outperformed in response to BNP's bid for Société Générale and Paribas. The three French banks ended largely unchanged.

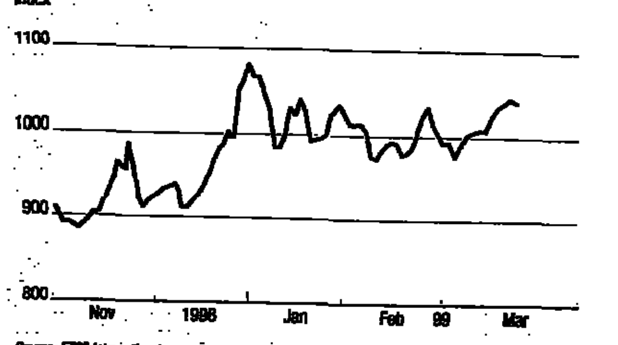
Consumer cyclicals, such as leisure, media, retail and services, could prove the main beneficiaries of the latest political events, according to a report by Credit Suisse First Boston.

It expected the resignation of Oskar Lafontaine, the German finance minister, to result in a 50 basis point cut in euro-zone interest rates by the end of June. A *turn*around in business confidence, triggered by the increased likelihood of structural reforms, could lead to an economic recovery in the euro-zone through the second half of 1999.

The FTSE Eurotop 300 index fell 9.4 to 1,245.85, and the FTSE Eurotop 100 19.10 to 2,888.87. The FTSE Ebloc index of leading stocks in the euro-zone settled 4.84 lower at 1,039.25.

FTSE Eurobloc 100

Index



Source: FTSE International

■ THREE MONTH EURIBOR FUTURES (LIFFE) €1m 100 - rate

[illegible]

■ THREE MONTH EURO LIBOR FUTURES (LIFFE) €1m 100 - rate

[illegible]

■ THREE MONTH EURO LIBOR OPTIONS (LIFFE) €1m 100 - rate

[illegible]

■ FTSE EUROTOP 100 INDEX FUTURES (LIFFE) €20 per full index point

[illegible]

■ EURO STYLE FTSE EUROTOP 100 INDEX OPTION (AEX) €10 per index point

[illegible]

OTHER INDICES

[illegible]

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FTSE Actuaries Share Indices — European series

Produced in conjunction with the Faculty and Institute of Actuaries

Mar 17

National & Regional Markets	Euro Index	Day's %	change points	Yield gross %	xd adj ytd	Total retn (Euro) €
FTSE Eurotop 300	1245.85	–0.75	–9.40	2.04	3.41	1288.42
FTSE Eurotop 100	2888.87	–0.66	–19.10	2.01	9.24	1038.98
FTSE Eurobloc 100	1039.25	–0.46	–4.84	1.92	0.74	1055.69
FTSE EuroMid	1223.96	–0.57	–7.04	2.70	3.50	1271.94
FTSE EuroMid Eurobloc	1186.53	–0.46	–5.52	2.31	2.01	1213.67
FTSE EuroMid Ex UK	*1242.91*	*–0.14*	*–1.71*	*2.13*	*1.57*	*1267.53*
FTSE Eurotop 300 Regions						
Eurobloc	1293.69	–0.43	–5.81	1.89	1.18	1322.62
UK	1190.08	–1.56	–18.85	2.56	7.87	1257.91
Europe Ex-Eurobloc	1208.69	–1.08	–13.22	2.20	5.63	1257.82
Europe Ex-UK	1278.33	–0.32	–4.12	1.78	0.91	1303.21
FTSE Eurotop Industry Sectors						
RESOURCES	981.68	+1.56	+15.06	2.96	3.69	1030.95
Mining	937.35	–2.56	–24.66	3.87	21.37	980.69
Oil & Gas	946.56	+1.73	+16.14	2.93	2.82	972.82
BASIC INDUSTRIES	*1110.22*	*+0.02*	*+0.19*	*2.57*	*2.55*	*1136.59*
Chemicals	846.88	–0.01	–0.05	2.53	2.47	864.45
Construction & Bld Matls	1029.62	+0.32	+3.24	2.14	1.13	1039.83
Forestry & Paper	952.93	–0.58	–5.56	4.06	0.00	996.50
GENERAL INDUSTRIALS	1149.46	–0.05	–0.58	2.22	3.28	1177.39
Aerospace & Defence	779.73	–2.76	–22.15	2.21	2.89	793.29
Diversified Industrials	993.90	–0.24	–2.37	2.05	0.00	1018.63
Electronic & Elect Equip	1057.68	+0.86	+9.04	1.82	5.15	1068.94
Engineering & Machinery	1023.79	–0.56	–5.77	2.98	4.16	1042.24
CYCLICAL CONS GOODS	1270.34	–1.43	–18.39	2.26	0.60	1305.91
Automobiles	931.22	–1.44	–13.56	2.31	0.53	940.39
Household Goods & Texts	1327.57	–1.38	–18.53	2.14	0.00	1338.90
NON-CYC CONS GOODS	1206.54	–0.64	–7.82	1.51	2.75	1242.53
Beverages	955.60	+0.89	+8.52	2.58	0.00	986.45
Food Producers & Process	910.73	–0.81	–7.39	1.75	1.41	922.83
Health	988.43	–0.98	–9.75	1.20	0.00	1003.22
Packaging	807.34	+0.02	+0.19	1.12	0.00	808.35
Personal Care & Hse Prods	1088.08	+0.16	+1.77	0.92	0.00	1097.37
Pharmaceuticals	1097.81	–0.80	–8.89	1.20	3.25	1106.98
Tobacco	1307.77	–1.62	–21.49	3.80	7.11	1339.54
CYCLICAL SERVICES	1309.94	–1.21	–16.00	2.12	3.26	1351.84
Distributors	654.73	–0.44	–2.91	4.51	0.00	662.09
General Retailers	1088.53	–0.62	–6.79	2.25	1.27	1112.33
Leisure Entertmt & Hotels	990.18	–2.25	–22.84	2.01	8.72	1013.39
Media & Photography	1195.31	–2.53	–31.01	1.88	5.20	1213.17
Rests, Pubs & Breweries	876.90	–1.00	–8.88	3.26	3.71	906.56
Support Services	1064.65	–0.09	–0.98	1.11	1.10	1077.03
Transport	948.78	–0.31	–2.97	2.73	1.81	968.09
NON-CYCLICAL SERVS	1327.70	–2.15	–29.19	1.44	0.48	1367.05
Food & Drug Retailers	1013.40	–0.31	–3.16	2.12	0.51	1029.38
Telecommunications Servs	1317.26	–2.54	–34.40	1.32	0.43	1337.33
UTILITIES	*1384.90*	*–1.11*	*–15.58*	*3.20*	*5.17*	*1473.81*
Electricity	1047.51	–1.08	–11.45	3.34	4.44	1085.32
Gas Distribution	1187.95	–0.95	–11.43	1.63	1.00	1309.05
Water	865.74	–1.71	–15.03	5.83	5.94	912.32
FINANCIALS	1347.46	–0.95	–12.89	2.14	5.57	1390.24
Banks	962.02	–0.86	–8.33	2.56	5.82	982.00
Insurance	1004.04	–0.84	–8.49	1.38	1.78	1017.98
Life Assurance	1132.34	–1.90	–21.88	1.75	0.96	1147.99
Investment Companies	999.05	+0.20	+2.03	1.78	0.00	1023.02
Real Estate	728.66	–2.45	–18.27	3.41	1.67	749.37
Speciality & Other Fin	987.00	–1.01	–10.08	2.27	0.00	1003.48
INFORMATION TECH	927.92	–0.72	–6.76	0.89	0.04	930.18
Information Tech Hardware	1018.25	–0.75	–7.65	1.00	0.00	1020.67
Software & Computer Serv	719.29	–0.65	–4.70	0.53	0.15	721.13

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FTSE EUROTOP 300

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Name	Price (Euro)	Chge + or -	Mkt cap Euro(bn)	Vol (m)	Yld
[illegible]					

Notes

Price data and market capitalisations supplied by FTSE International. Market capitalisation figures are based on shares used in index calculations. Shares are not counted where foreign ownership restrictions apply. Market caps may include secondary lines not eligible as constituents. Stocks in bold type are domiciled in Euro countries. Trading Volumes and yields derived from local domestic sources and supplied by Financial Times Information. Company classifications are based on those used for the FTSE Eurotop share indices.

CURRENCIES & MONEY

EURO SPOT FORWARD AGAINST THE EURO

Mar 17

		Closing mid-point	Change on day	Bid/offer spread	Day's mid high	Day's mid low	One month Rate	One month %PA	Three months Rate	Three months %PA	One year Rate	One year %PA
[illegible]												
South Africa	(R)	6.8489	+0.0155	429 - 549	6.9103	6.8037	6.9203	–12.5	7.0530	–11.9	[illegible]	–10.7
South Korea	(Won)	1350.68	+12.7500	921 - 215	1354.42	1349.50	-	-	-	-	-	-
Taiwan	(T$)	36.4916	+0.3688	266 - 565	36.6180	36.2330	36.6069	–6.4	37.0309	–5.9	38.2389	–4.8
Thailand	(Bt)	41.0764	+0.5022	266 - 261	41.2150	40.8458	41.2238	–4.3	41.5886	–5.0	43.4556	–5.8
UAE	(Dirham)	4.0432	+0.0365	418 - 445	4.0550	3.9750	4.0506	–2.2	4.0664	–2.3	4.1474	–2.6

Euro Locking Rates: Austrian Schilling 13.7603, Belgium/Luxembourg Franc 40.3399, Finnish Markka 5.94573, French Franc 6.55957, German Mark 1.95583, Irish Punt 0.787564, Italian Lira 1936.27, Netherlands Guilder 2.20371, Portuguese Escudo 200.482, Spanish Peseta 166.386. Bid/offer spreads in the Euro Spot table show only the last three decimal places. Bid, offer, mid spot rates and forward rates are derived from THE WM/REUTERS CLOSING SPOT and FORWARD RATE services. Some values are rounded by the FT

BONDS

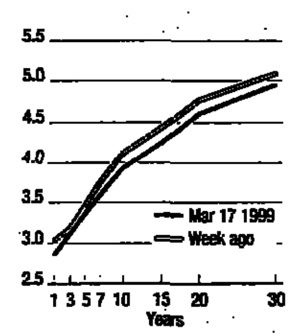
INTEREST RATE SWAPS

Mar 17	Euro-€ Bid	Euro-€ Ask	£ Stlg Bid	£ Stlg Ask	SwFr Bid	SwFr Ask	US $ Bid	US $ Ask	Yen Bid	Yen Ask
1 year	3.04	3.07	5.42	5.45	1.51	1.55	5.25	5.28	0.20	0.23
2 year	3.11	3.15	5.24	5.27	1.75	1.83	5.43	5.46	0.31	0.34
3 year	3.25	3.29	5.26	5.30	1.98	2.06	5.54	5.57	0.54	0.57
4 year	3.42	3.46	5.25	5.29	2.17	2.25	5.61	5.64	0.78	0.81
5 year	3.60	3.64	5.22	5.26	2.36	2.44	5.68	5.71	1.05	1.08
6 year	3.78	3.82	5.21	5.25	2.53	2.61	5.74	5.77	1.31	1.34
7 year	3.94	3.98	5.21	5.25	2.70	2.78	5.79	5.82	1.55	1.58
8 year	4.09	4.13	5.21	5.25	2.87	2.95	5.83	5.86	1.75	1.78
9 year	4.21	4.25	5.22	5.26	3.02	3.10	5.87	5.90	1.90	1.93
10 year	4.30	4.34	5.23	5.27	3.16	3.24	5.91	5.94	2.05	2.08
12 year	4.45	4.49	5.24	5.29	3.39	3.49	5.96	5.99	2.26	2.30
15 year	4.65	4.69	5.25	5.30	3.64	3.74	6.06	6.09	2.52	2.57
20 year	4.87	4.91	5.26	5.31	3.90	4.00	6.15	6.18	2.72	2.77
25 year	5.00	5.04	5.25	5.32	4.00	4.10	6.15	6.18	2.78	2.83
30 year	5.06	5.10	5.25	5.32	4.10	4.20	6.15	6.18	2.83	2.89

Bid and ask rates as of close of London business. US $ is quoted annual money actual/360 basis against 3 months Libor. £ and Yen quoted on a semi-annual actual/365 basis against 6 months Libor. Euro/Swiss Franc quoted on annual bond 30/360 basis against 6 month Euribor/Libor with the exception of the 1 year rate which is quoted against 3 month Euribor/Libor. Source: Intercapital Europe Limited

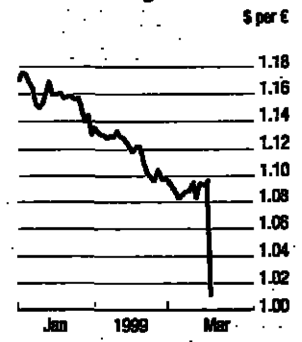
Euro bond yield curve

Per cent



Euro against the dollar

$ per €



Source: Interactive Data/FT Information

EURO-ZONE BONDS

Mar 17	Red date	Coupn	S & P Rating	Bid price	Bid yield	Day's chge yld	Mth's chge yld	Sprd v Govts
■ SOVEREIGNS								
UK	01/01	4.250	AAA	101.991	3.12	–0.02	–0.03	+0.12
Denmark	01/02	4.750	AA+	103.937	3.25	–0.02	–0.04	+0.15
Sweden	02/01	5.000	AA+	103.322	3.15	–0.01	–0.03	+0.15
Greece	11/08	6.750	BBB	114.807	4.42	–0.05	–0.05	+0.82
■ SUPRANATIONALS								
ADB	10/07	5.500	AAA	108.043	4.35	–0.05	–0.02	+0.63
EIB	04/08	5.000	AAA	106.650	4.11	–0.04	+0.01	+0.26
Eurofima	12/09	5.625	AAA	109.116	4.53	–0.05	+0.03	+0.57
World Bank	04/05	7.125	AAA	117.817	3.78	–0.04	–0.08	+0.31
■ UTILITIES								
EDF	10/03	3.750	n/a	101.537	3.38	–0.04	–0.14	+0.16
TEPCO	02/03	4.750	AA	103.791	3.69	–0.03	–0.16	+0.47
Quebec Hydro	03/08	5.375	A+	105.254	4.65	–0.04	+0.00	+0.80
Norsk Hydro	10/99	7.250	A	101.956	3.42	–0.05	–0.07	+0.58
■ FINANCIALS								
Bad Wurtt	02/10	5.375	AAA	107.654	4.47	–0.06	+0.05	+0.45
OKB	09/07	5.750	AAA	111.437	4.12	–0.05	–0.03	+0.40
Credit Local	04/08	5.250	AA+	108.181	4.41	–0.04	–0.02	+0.56
Abbey Natl	01/09	5.000	AA–	101.822	4.76	–0.05	+0.03	+0.80
■ INDUSTRIALS								
Unilever	10/01	5.125	AAA	104.283	3.34	–0.04	–0.09	+0.34
McDonalds	03/08	5.125	AA	105.375	4.39	–0.04	+0.00	+0.54
Philip Morris	06/08	5.625	A	104.817	4.96	–0.04	+0.07	+1.11
BAT Int Fin	07/06	5.375	A–	103.143	4.85	–0.05	–0.06	+1.25
■ PFANDBRIEFE								
Rhein Hypo	12/01	5.500	n/a	105.708	3.25	–0.02	–0.03	+0.25
Eurohypo AG	01/04	5.000	n/a	106.157	3.58	–0.03	+0.00	+0.24
Bayer Vereins	01/06	6.000	n/a	112.114	3.94	–0.03	+0.05	+0.34
Depfa	07/08	4.750	n/a	103.595	4.27	–0.04	+0.08	+0.42
■ HIGH YIELD								
Geberit	04/07	10.125	B+	114.777	6.27	–0.10	–2.23	+2.55
Colt Telecom	11/07	8.875	n/a	107.522	7.67	–0.08	–0.13	+3.85
Impress Metal	05/07	9.875	B	111.000	7.34	–0.17	–2.07	+3.62
Remy Cointreau	07/05	10.000	B+	99.837	10.03	–0.02	–0.73	+6.56

Standard & Poor's ratings. Source: Interactive Data/FT Information.

TRADING OF DISTRESSED LOANS

LMA set to launch code of practice

By Arkady Ostrovsky

The Loan Market Association, which includes 80 banks active in European loan markets, will today launch a standard code of practice for trading distressed corporate loans.

The guidelines, which are the result of 10 months of deliberations, aim to regularise trading in corporate loans that need to be restructured as a result of the borrower's financial problems. These include loans to companies which need to roll over their loans, seek debt forgiveness or face insolvency.

At present, distressed loans are traded on a case-by-case basis, each subject to its own documentation, which often leads to high legal costs, failed trades and long settlement periods.

The introduction of standard rules covering trade confirmation, settlement periods and exchange of contracts will increase transparency and liquidity in the European distressed debt market, the volume of which has increased three-fold to $14bn. Distressed debt prices range from 1 per cent of face value for a corporate loan to Chancery Bank liquidated in 1992 to 73 per cent of face value for the loan to Euro Disney.

Standard documentation will also cut legal costs by as much as 50 per cent for some of the more liquid distressed loans such as Euro Disney, Eurotunnel and Queens Moat Houses, according to Tony Tucker, deputy head of debt trading at Bank of America who chairs the distressed debt committee at the LMA.

"The LMA's move will improve liquidity and put the market on a more professional footing and should lead to a further surge in business," Mr Tucker said.

Most of the buyers of distressed debt at present are the US hedge funds and vulture funds, but the launch of the standard code of practice for trading these assets is expected to attract a broader range of investors looking for high yield.

The code of practice will regularise confirmation of telephone trades, settlement of transactions within 20 business days, arrangements for paying interest and transfer of documentations.

Mr Tucker said the initiative agreed with the Bank of England's "London Approach" for companies in financial troubles, which favours out of court settlements and encourages creditors to work out a consensus for loan restructuring. Mr Tucker said the code of practice should also prompt companies to give their consent to secondary trading of their debt.

He said the surge in Europe's distressed debt might help offset the decline in volume of distressed debt in the US.

The distressed debt market originated in the US in the 1980s, where many highly geared companies got into financial difficulties and were forced to restructure their loans. However in the past two years, the US market has been shrinking and is now estimated to be as little as $10bn.

Treasuries slip in thin trading

BENCHMARK BONDS

By Vincent Boland in London and John Labate in New York

Markets were mixed as a weak US dollar and some profit-taking set the tone. European markets held on to slight gains, but prices of US Treasuries had fallen in fairly thin early trading.

By early afternoon the 30-year bond was down ¾ at 96⅞ to yield 5.502 per cent. Two-year notes fell 3/32 to 100, yielding 4.999 per cent, and the 10-year note fell 3/32 to 97⅞ to yield 5.130 per cent.

Treasury investors were awaiting two closely-watched reports – on inflation and the US trade balance – which analysts said would set the tone of trading for the remainder of the week.

Traders in Europe said the current rally in the markets from the low levels seen two to three weeks ago was continuing but was bound to be gradual. There was also little market-moving news yesterday to have a decisive impact.

As well as the dollar, investors were also keeping an eye on stock markets.

Analysts said the combination of relatively low bond yields and relatively high stock markets suggested both bonds and equities were in good shape, but there was concern about how much further either could go.

"The issue is whether there is a share price level in the US and Japan at which bond investors get nervous," said David Knott, core Europe strategist at Deutsche Bank. "I think there is, but we have not reached that level yet. It is difficult to interpret what is going on in Japan and what might happen after the [financial] year-end."

The yield on 10-year German bunds ended some 1.5 basis points lower at just over 3.93 per cent. Bunds again outperformed Treasuries and the spread widened to 124 basis points from 120 basis points. The 10-year bund future also posted a modest gain of 0.08, to 114.46.

An auction of two-year German paper was well received by investors, attracting nearly €20bn of demand for the tranche of just over €4bn on offer. Traders said the auction price suggested investors were not expecting any quick change in short-term European interest rates.

UK gilts proved the best of the markets on a positive reading of the latest minutes of the Bank of England's monetary policy committee. Ten-year gilts shaved 3 points off the spread over bunds to end at 65 basis points.

Fiat boards euro bandwagon

NEW ISSUES

By Edward Luce, Capital Markets Editor

Fiat, the Italian carmaker, yesterday added to the growing list of corporate names that have tapped the European single currency recently, with a €1bn five-year offering.

The bond, priced at 61 basis points over the Bobl, was launched at roughly the same spread as the secondary trading level of Ford, which issued its debut in euros last week.

However, the deal – Fiat's first big international benchmark – widened several basis points after launch. Bankers suggested there may have been oversupply in the single A-rated names in euros. "There's good demand for corporate paper in Europe, but not overwhelming demand," said one banker.

Telefónica, the Spanish telecommunications group that is also a recent debutant in euros, has also seen its benchmark widen in the past few days.

Others rumoured to be preparing euro offerings include Morocco, Philip Morris and BAT (for a second time).

Cades, the French state-backed entity which manages the country's social security debts, yesterday launched its much awaited debut inflation-linked bond – the first such transaction by a non-sovereign in Europe.

The 14-year bond, which follows on from France's debut inflation-linked offering last September, is seen as a prelude to a longer-dated inflation linked offering by France.

New international bond issues

Borrower	Amount m.	Coupon %	Price	Maturity	Fees %	Spread bp	Book-runner
US DOLLARS							
Champion HELT 99-1(a)‡	400	(a1,l)	100.00	Mar 2030	0.30	-	Lehman Brothers
John Hancock Global Fndng	250	6.125	99.70R	Mar 2009	0.35R	+100(Nov09)	CSFB
EUROS(e)							
Cades(b)	1.5bn	3.15	99.83R	Jul 2013	0.325R	+14(OATi)	CDC/CAI/SG
Fiat Finance and Trade Ltd	1bn	3.75	99.341R	Mar 2004	0.30R	+61(3½Nov03)	Deutsche/Medio/MSDW
DePfa Bank(p)‡	1bn	(c)	100.018R	Mar 2001	0.075R	-	Morgan Stanley DW
Argenta Nederland	50	4.00	100.00	Apr 2004	1.75	-	BCEE
STERLING							
GECC(d)	100	5.125	100.08	Jan 2004	0.25	+53(6¾Nov04)	Salomon SB
Millshaw Sams No 1(f)	97.84	zero	114.00	Jun 2054	1.00	-	Barclays Capital
CANADIAN DOLLARS							
Commerzbank AG	100	5.375	99.57R	Apr 2004	0.275R	+32(5¼Sep03)	RBC DS Global Markets
AUSTRALIAN DOLLARS							
Westpac Banking Corp*	200	4.90#	99.95	Mar 2002	1.035	-	Nomura International
GREEK DRACHMA							
Hypovereins Finance(g)	30bn	5.50	99.00R	Feb 2004	0.25R	-	HypoVereinsbank
SOUTH AFRICAN RAND							
Transnet	1.5bn	10.00	68.765	Mar 2029	2.00	-	RBC DS Global Markets

Final terms, non-callable unless stated. Yield spread (over relevant government bond) at launch supplied by lead manager. *Unlisted. ‡ Floating-rate note. #Semi-annual coupon. R: fixed re-offer price; fees shown at re-offer level. a) Home Equity Loan Trust. a1) 1-mth Libor +26bp. b) Linked to French RPI. c) 3-mth Euribor -5bp. d) Fungible with £200m. Plus 74 days accrued. e) Spread relates to German govt bonds unless stated. f) Shared Appreciation Mortgage Securities. Originator: Barclays Sams Ltd. Coupons and redemption linked to appreciation of underlying properties. g) Fungible with Dr20bn. Plus 43 days accrued. l) Long 1st coupon. p) Oeffentliche Pfandbriefe.

NEWS DIGEST

JAPAN

Extension granted on TFB bond purchases

Japan's Ministry of Finance yesterday pleased investors by announcing it would allow its Trust Fund Bureau to continue to purchase JGBs in the secondary market after April. "We have decided to continue bond purchases by watching market conditions carefully," said Kiichi Miyazawa, finance minister, though he did not specify an exact timeframe. Yesterday's move follows a policy U-turn last month, when the ministry announced a resumption of purchases by the TFB, which manages Japan's vast pool of postal savings, for one month. Last December, the decision to halt the bureau's JGB purchases sent the market into a tailspin.

Mr Miyazawa also confirmed the ministry would keep April's auction of 10-year JGBs at Y1,400bn. This is the same level as in March, when it cut issuance by Y400bn, after two Y1,800bn auctions in the preceding months led to fears of oversupply. **Naoko Nakamae, Tokyo**

RUSSIA

Debt restructuring offer

The Russian finance ministry said yesterday that foreign investors in domestic GKO/OFZ debt securities had accepted its restructuring offer for 32 per cent of their holdings. Domestic holders had exchanged 85 per cent of their interest, the ministry said, raising the total acceptance level to 41 per cent of the Rbs280bn in securities on which Russia defaulted last August. In dollar terms, the nominal value has dropped since then from $40bn to $12bn.

The ministry said no talks had been held with Credit Suisse First Boston, which has launched an investment fund as an alternative to the restructuring offer. CSFB wants the government to pay the nominal value of investors' GKOs into the fund, which would invest the funds into infrastructure and other projects. The cash flow from these projects would provide the eventual repayment. CSFB has never hidden its unhappiness about Russia's offer. **Clay Harris**

REPUBLIC OF LITHUANIA

€200m issue postponed

The Republic of Lithuania has postponed its planned five-year, €200m benchmark bond issue, citing unsettled market conditions following the resignations of Oskar Lafontaine, German finance minister, and of the European Commission. "We are ready for the transaction, and when market conditions permit, we will make the issue," said Algirdas Semeta, Lithuania's finance minister. He did not indicate any future timing for the issue, which was to have been lead managed by Credit Suisse First Boston and Dresdner Kleinwort Benson. **Matej Vipotnik**

WORLD BOND PRICES

BENCHMARK GOVERNMENT BONDS

Mar 17	Red Date	Coupon	Bid Price	Bid Yield	Day chg yield	Wk chg yield	Month chg yld	Year chg yld
Australia	01/01	8.750	106.6060	4.89	+0.02	-0.21	+0.02	-0.13
	08/09	8.750	124.5238	5.39	-	-0.23	+0.05	-0.36
Austria	03/01	5.250	104.1000	3.08	-0.01	-0.09	+0.02	-0.93
	01/08	5.000	106.6200	4.09	-0.01	-0.13	+0.03	-0.84
Belgium	03/01	5.000	103.6900	3.08	-0.01	-0.09	+0.17	-0.93
	03/09	3.750	96.5000	4.19	-0.04	-0.11	+0.09	-0.75
Canada	12/00	5.000	99.8600	5.08	+0.04	-0.07	+0.04	+0.15
	06/08	6.000	105.6800	5.21	+0.05	-0.05	+0.06	-0.15
Denmark	11/00	9.000	106.7800	3.39	+0.03	-0.07	-0.11	-0.77
	11/09	6.000	113.6700	4.36	+0.01	-0.12	+0.14	-0.75
Finland	06/00	4.000	101.1950	3.00	+0.01	-0.05	-	-0.58
	04/09	5.000	106.7160	4.17	-0.05	-0.15	+0.06	-0.64
France	07/00	4.000	101.2600	2.99	-0.01	-0.08	-0.05	-0.93
	04/06	7.250	122.3000	3.62	-0.05	-0.16	+0.01	-0.98
	04/09	4.000	99.6400	4.04	-0.04	-0.14	+0.06	-0.84
	04/29	5.500	108.7300	4.94	-0.05	-0.14	+0.06	-0.49
Germany	05/01	5.000	104.1000	3.00	-0.02	-0.07	-0.01	-0.82
	01/06	6.000	113.1800	3.76	-0.01	-0.13	+0.06	-0.90
	01/09	3.750	98.4800	3.94	-0.04	-0.14	-0.01	-0.92
	07/28	4.750	97.3800	4.92	-0.05	-0.13	+0.04	-0.51
Greece	03/00	9.800	100.6686	9.06	-0.09	-0.20	-0.15	-3.72
	01/09	6.300	103.0521	5.88	-0.01	-0.10	-0.23	-2.58
Ireland	10/01	6.500	108.1600	3.16	-	-0.06	-0.04	-1.25
	08/08	6.000	114.1000	4.16	-	-0.08	+0.05	-0.85
Italy	07/01	4.500	103.0200	3.11	-0.03	-0.08	-0.03	-1.39
	07/03	4.500	104.1600	3.45	-0.04	-0.11	-0.03	-1.26
	05/09	4.500	102.8500	4.15	-0.05	-0.12	+0.04	-0.89
	11/27	6.500	120.2500	5.14	-0.04	-0.10	+0.09	-0.51
Japan	12/00	6.900	111.5710	0.24	-0.04	-0.02	-0.21	-0.34
	12/03	4.100	114.7580	0.92	-0.07	+0.02	-0.38	-0.24
	06/08	1.800	100.8140	1.70	-0.09	+0.02	-0.28	+0.12
	09/18	2.300	95.5010	2.60	-0.10	+0.01	-0.30	+0.21
Netherlands	01/01	9.000	110.3700	3.03	+0.01	-0.05	+0.06	-0.88
	07/09	3.750	97.3500	4.07	-0.04	-0.13	+0.07	-0.77
New Zealand	02/01	8.000	105.5474	4.88	+0.01	-0.19	-0.14	-2.60
	07/09	7.000	109.9487	5.71	-0.09	-0.19	+0.08	-1.09
Norway	05/01	7.000	104.2000	4.91	-	-0.07	+0.09	+0.58
	05/09	5.500	105.2000	4.84	-0.03	-0.19	+0.05	-0.39
Portugal	03/00	5.375	102.4100	2.89	-0.06	-0.09	-0.29	-1.12
	06/08	5.375	109.1500	4.16	-0.03	-0.11	+0.06	-0.88
Spain	01/01	5.000	103.6300	2.98	+0.01	-0.08	-0.07	-1.20
	07/09	5.150	106.1300	4.40	-0.05	-0.14	+0.31	-0.64
Sweden	05/00	10.250	107.4983	3.27	-0.05	-0.08	+0.02	-1.43
	05/08	6.500	116.2870	4.30	-0.09	-0.21	+0.12	-0.95
Switzerland	06/00	4.500	103.6700	1.42	-	+0.01	+0.02	-0.11
	01/08	4.250	116.3500	2.18	-0.01	+0.03	-0.19	-0.51
UK	11/01	7.000	105.3800	4.81	-0.03	-0.15	+0.06	-1.82
	12/03	6.500	108.0700	4.58	-0.06	-0.17	+0.07	-1.49
	12/09	5.750	111.2200	4.42	-0.06	-0.19	-0.09	-1.52
	12/28	6.000	125.7500	4.43	-0.06	-0.19	+0.04	-1.41
US	01/01	4.500	99.0874	5.01	+0.03	-0.05	+0.04	-0.49
	02/04	4.750	98.6907	5.05	+0.02	-0.09	+0.01	-0.57
	11/08	4.750	97.0721	5.14	+0.03	-0.06	+0.01	-0.48
	02/29	5.250	96.3805	5.50	+0.03	-0.06	-0.03	-0.41

London closing * New York mid-day. Source: Interactive Data/FT Information

Yields: Local market standard/Annualised yield basis. Yields shown for Italy exclude withholding tax at 12.5 per cent payable by nonresidents.

10 YEAR BENCHMARK SPREADS

Mar 17	Bid Yield	Spread vs Euros	Spread vs T-Bonds		Bid Yield	Spread vs Euros	Spread vs T-Bonds
Australia	5.40	+1.44	+0.27	Netherlands	4.10	+0.14	-1.03
Austria	4.25	+0.29	-0.88	New Zealand	5.71	+1.75	+0.58
Belgium	4.18	+0.22	-0.95	Norway	4.84	+0.88	-0.29
Canada	5.21	+1.25	+0.08	Portugal	4.24	+0.28	-0.89
Denmark	4.35	+0.39	-0.78	Spain	4.26	+0.30	-0.87
Finland	4.17	+0.21	-0.96	Sweden	4.33	+0.37	-0.80
France	4.03	+0.07	-1.10	Switzerland	2.37	-1.59	-2.76
Germany	3.96	-	-1.17	UK	4.52	+0.56	-0.61
Greece	5.88	+1.92	+0.75	US	5.13	+1.17	-
Ireland	4.21	+0.25	-0.92				
Italy	4.18	+0.22	-0.95				
Japan	1.75	-2.21	-3.38				

Source: Interactive Data/FT Information. London closing. * New York closing. Annualised yield basis.

EMERGING MARKET BONDS

Mar 17	Red date	Coupn	S & P Rating	Bid price	Bid yield	Day's chge yld	Mth's chge yld	Sprd vs US
EUROPE								
Croatia	02/02	7.000	BBB-	95.5734	8.82	+0.06	-0.31	+3.80
Poland	07/04	7.125	BBB-	103.1173	6.40	+0.03	+0.61	+1.35
Russia	06/07	10.000	n/a	27.7700	40.97	-1.17	+2.64	+35.87
LATIN AMERICA								
Argentina	09/27	9.750	BB	84.0000	11.69	+0.11	+0.11	+6.23
Brazil	05/27	10.125	B+	68.0000	15.00	+0.32	-0.17	+9.54
Mexico	05/26	11.500	BB	111.2500	10.26	+0.02	-0.44	+4.82
ASIA								
China	07/06	7.750	BBB+	101.5000	7.47	-0.13	-0.05	+2.39
Philippines	10/16	8.750	BB+	93.7500	9.49	-0.08	+0.04	+4.23
Thailand	04/07	7.750	BBB-	102.3500	7.36	-0.05	-0.34	+2.26
AFRICA/MIDDLE EAST								
Lebanon	07/00	9.125	BB-	102.0037	7.45	+0.06	+1.42	+2.48
South Africa	10/06	8.375	BB+	97.7216	8.79	+0.18	-0.82	+3.71
Turkey	09/07	10.000	B	91.5210	11.60	-0.04	-0.37	+6.50
BRADY BONDS								
Argentina	03/23	5.750	BB	70.3750	9.04	+0.08	-0.01	+3.65
Brazil	04/14	5.000	B+	60.1250	13.83	+0.26	-0.23	+8.71
Mexico	12/19	6.250	BB	78.5000	8.46	+0.04	-0.13	+3.14
Venezuela	03/20	6.750	B+	65.6250	10.97	+0.15	+0.06	+5.64

London closing. Prices in US$. Standard & Poor's ratings. Source: Interactive Data/FT Information.

BOND FUTURES AND OPTIONS

France

NOTIONAL EURO BOND FUTURES (MATIF) €100,000

	Open	Sett price	Change	High	Low	Est. vol.	Open int.
Jun	95.31	95.37	+0.29	95.66	95.17	25,164	66,541

LONG TERM EURO BOND OPTIONS (MATIF)

Strike Price	CALLS Apr	CALLS May	CALLS Jun	PUTS Apr	PUTS May	PUTS Jun
97	-	-	0.26	-	-	-
98	-	-	0.13	3.45	3.49	-
99	-	-	0.06	4.45	4.45	-
100	-	-	0.03	5.45	5.45	-

Est. vol. total, Calls n/a Puts n/a. Previous day's open int., Calls n/a Puts n/a.

Germany

NOTIONAL EURO BOND FUTURES (EUREX) €100,000 100ths of 100%

	Open	Sett price	Change	High	Low	Est. vol	Open int.
Jun	114.40	114.46	+0.07	114.69	114.24	641,733	532,511
Sep	114.50	114.80	+0.06	114.77	114.49	583	1,211

NOTIONAL EURO BUND (BOBL) FUTURES (EUREX) €100,000 100ths of 100%

	Open	Sett price	Change	High	Low	Est. vol	Open int.
Jun	108.89	108.91	+0.05	108.95	108.80	153,098	216,099

NOTIONAL LFB SWAP FUTURES (LIFFE)* 5yr 4.0% DM250,000 points of 100%

	Open	Sett price	Change	High	Low	Est. vol	Open int.
A	-	-	-	-	-	-	

NOTIONAL LFB SWAP FUTURES (LIFFE)* 10yr 4.5% DM250,000 points of 100%

	Open	Sett price	Change	High	Low	Est. vol	Open int.
A	-	-	-	-	-	-	

Also traded on APT. All Open interest figs. are for previous day.

Italy

NOTIONAL ITALIAN GOVT. BOND (BTP) FUTURES (LIFFE)* Lira 200m 100ths of 100%

	Open	Sett price	Change	High	Low	Est. vol	Open int.
Jun	113.26	113.63	+0.39	113.84	113.26	11563	35600

Spain

NOTIONAL SPANISH BOND FUTURES (MEFF) €100,000

	Open	Sett price	Change	High	Low	Est. vol.	Open int.
Jun	97.85	98.16	+0.35	98.37	97.81	24,404	16,953

UK

NOTIONAL 5 YEAR GILT FUTURES (LIFFE) £100,000 100ths of 100%

	Open	Sett price	Change	High	Low	Est. vol	Open int.
Mar	-	108.68	+0.31	-	-	0	63
Jun	-	108.41	+0.32	-	-	0	0

NOTIONAL UK GILT FUTURES (LIFFE)* £100,000 100ths of 100%

	Open	Close	Change	High	Low	Est. vol	Open int.
Mar	116.75	117.11	+0.46	117.30	116.66	617	6367
Jun	117.35	117.68	+0.46	118.03	117.20	40790	73260

* LIFFE futures also traded on APT. All Open interest figs. are for previous day

LONG GILT FUTURES OPTIONS (LIFFE) £100,000 100ths of 100%

Strike Price	CALLS Jun	CALLS Sep	PUTS Jun	PUTS Sep
11700	1.73	2.48	1.05	1.80
11750	1.44	2.20	1.26	2.02
11800	1.19	1.97	1.51	2.29
11850	0.98	1.75	1.80	2.57
11900	0.79	1.54	2.11	2.86
11950	0.63	1.36	2.45	3.18

Est. vol. total, Calls 825 Puts 565. Previous day's open int., Calls 12160 Puts 10184

US

US TREASURY BOND FUTURES (CBT) $100,000 32nds of 100%

	Open	Latest	Change	High	Low	Est. vol.	Open int.
Mar	122-21	122-09	-0-14	123-04	122-09	79,345	51,038
Jun	122-08	121-25	-0-14	122-20	121-23	311,162	579,357
Sep	122-06	121-15	-0-10	122-06	121-15	380	16,717

Japan

NOTIONAL LONG TERM JAPANESE GOVT. BOND FUTURES (LIFFE) Y100m 100ths of 100%

	Open	Sett price	Change	High	Low	Est. vol	Open int.
Jun	131.45	131.80	-	132.00	131.20	2494	n/a
Sep	-	130.80	-	-	-	0	n/a

Euro

€ BOND FUTURES (MATIF) €100,000

	Open	Sett price	Change	High	Low	Est. vol.	Open int.
Jun	107.60	108.82	+0.12	107.60	107.60	1	20

US CORPORATE BONDS

Mar 16	Red date	Coupn	S & P Rating	Bid price	Bid yield	Day's chge yld	Mth's chge yld	Sprd v Govts
UTILITIES								
Pac Bell	07/02	7.25	AA-	104.6261	5.68	-	+0.18	+5.68
NY Tel	08/25	7.00	A+	99.6882	7.02	-0.03	-0.03	+1.55
CWE	05/08	8.00	BBB	112.7884	6.15	-0.03	+0.06	+1.05
FINANCIALS								
GECC	05/07	8.75	AAA	117.8537	5.95	-0.04	+0.03	+0.85
Banc One	08/02	7.25	A	104.3879	5.79	-0.03	+0.07	+5.79
CNA Fin	01/18	6.95	A-	94.6294	7.48	-0.09	+0.30	+2.01
INDUSTRIALS								
WMX Tech	04/99	6.25	BBB+	100.0159	5.60	+0.02	-0.25	+1.10
Wal Mart	05/02	6.75	AA	103.8651	5.39	-0.02	+0.23	+5.39
Dayton Hud	06/21	9.70	A-	133.4419	6.76	-0.04	+0.01	+1.29
AGENCIES								
FHLMC	04/07	7.14	N/A	108.6830	5.74	-0.04	+0.08	+0.64
SLMA	03/00	7.50	N/A	102.1720	5.18	+0.03	-0.01	+0.68
FNMA	02/18	8.95	N/A	132.8421	6.01	-0.04	-0.03	+0.54
FFCB	06/06	8.95	N/A	119.1745	5.66	-0.04	+0.04	+0.56
HIGH YIELD								
Stone Cont	02/01	9.88	B	101.3750	0.00	-	-	-
AK Stl	12/01	9.13	BB-	105.5000	0.00	-	-	-
Parcalla	06/04	10.75	B-	84.0000	0.00	-	-	-

NY latest. Standard & Poor's ratings. Yields: semi-annual basis. Source: Interactive Data/FT Information.

US INTEREST RATES

Latest		Treasury Bills and Bond Yields			
		One month	-	Two year	4.98
Prime rate	7¾	Two month	-	Three year	5.00
Broker loan rate	6½	Three month	4.53	Five year	5.03
Fed funds	4¾	Six month	4.68	10-year	5.11
Fed funds at intervention	-	One year	4.74	30-year	5.47

INTERNATIONAL BONDS

Mar 17	Red date	Coupon	S & P Rating	Bid price	Bid yld	Day's chge yld	Mth's chge yld	Spread v Govts
$								
EIB	04/07	7.250	AAA	108.8700	5.84	+0.02	+0.15	+0.74
ABN Amro	06/07	7.125	AA-	104.6862	6.37	+0.02	+0.06	+1.27
Quebec	01/07	7.000	A+	106.5873	5.94	+0.02	-0.13	+0.84
Citicorp FRN	02/04	5.066	AA-	99.1182	5.27	+0.02	-0.48	+0.22
C$								
Bayer L-Bk	08/04	9.500	AAA	117.2543	5.68	+0.07	+0.06	+0.22
Toronto (Bl of)	05/04	8.500	AA+	112.5061	5.64	+0.08	+0.11	+0.18
Bell Canada	07/99	10.625	A+	101.4375	5.56	+0.07	+0.07	+1.20
Deutsche B FRN	09/02	5.875	AA+	100.3861	5.75	+0.07	+0.07	+0.28
£								
EIB	12/07	7.625	AAA	117.2132	5.12	-0.08	+0.05	+0.50
Dresdner Bk	12/07	7.750	AA-	112.2049	5.91	-0.06	+0.02	+1.29
British Gas	03/00	7.625	A+	101.9500	5.60	+0.05	+0.03	+0.74
Abbey Nat FRN	02/02	5.587	AA	100.0313	4.30	-0.05	+0.07	-0.39
SFR								
EIB	01/08	3.750	AAA	104.5277	3.15	-0.01	-0.19	+0.94
Brit Columbia	02/02	3.250	AA	103.7194	1.92	+0.01	-	+0.27
Hydro-Quebec	05/01	6.750	n/a	108.6877	2.57	+0.01	+0.01	+1.04
Gen Elect	08/01	1.711	n/a	99.7710	1.52	+0.01	+0.01	-0.01
YEN								
IBRD (World Bk)	03/02	5.250	AAA	114.1972	0.47	-0.06	-0.23	-0.02
Spain (Kingdom)	03/02	5.750	AA	115.5097	0.53	-0.07	-0.30	+0.04
Cred Foncier	08/02	4.750	A	112.5421	0.96	-0.07	-0.32	+0.47
Italy (Rep of)	07/99	0.516	AA	100.0424	0.19	-0.10	-0.09	+0.08
A$								
IBRD (World Bk)	02/08	6.000	AAA	102.5916	5.62	+0.01	-0.12	+0.23
Nw Sth Wales Tr	05/08	6.500	n/a	104.9034	5.65	-	-0.10	+0.36
S. Aus Gov Fin	06/03	7.750	AA	107.7237	5.85	-	-0.09	+0.57
GMAC Aust	05/01	9.000	n/a	106.8672	5.53	-	-0.08	+0.60

London closing. Source: Interactive Data/FT Information

Standard & Poor's ratings. Yields: Local market standard/Annualised basis.

UK BONDS

FTSE Actuaries Government Securities

Price Indices UK Gilts	Wed Mar 17	Day's chge %	Accrued interest	xd adj ytd	Total Return	Yield	Duration Years	% Weight
1 Up to 5 years (16)	121.07	+0.15	1.80	2.15	1206.93	4.74	2.30	33.98
2 5-10 years (11)	171.34	+0.37	3.14	1.06	1335.79	4.60	5.86	29.38
3 10-15 years (7)	185.97	+0.50	2.65	1.44	1457.64	4.55	8.67	13.54
4 5-15 years (18)	175.59	+0.41	2.99	1.17	1370.72	4.58	6.75	42.92
5 Over 15 years (4)	231.62	+0.76	2.95	1.23	1583.04	4.54	11.92	22.32
6 Irredeemables (4)	324.03	+1.19	4.22	1.07	1886.61	4.67	21.64	0.78
7 All stocks (42)	166.13	+0.41	2.54	1.68	1357.07	4.59	6.49	100.00

UK Indices

Index-linked	Wed Mar 17	Day's chge %	Accrued interest	xd adj ytd	Total Return	% Weight
1 Up to 5 years (2)	224.10	-0.04	0.99	1.26	1170.29	14.79
2 Over 5 years (9)	261.32	-0.01	1.23	2.15	1419.51	85.21
3 5-15 years (5)	243.15	+0.00	1.00	2.03	1316.29	42.69
4 Over 15 years (4)	278.29	-0.01	1.48	2.29	1515.88	42.52
5 All stocks (11)	254.49	-0.01	1.19	2.00	1383.80	100.00

Yield Indices	Mar 17	Mar 16	Yr ago	Yield Indices	Mar 17	Mar 16	Yr ago
5 yrs	4.64	4.71	6.21	Irred †	4.67	4.72	6.01
10 yrs	4.56	4.63	5.97	Med. 15 yrs	4.57	4.63	5.90
15 yrs	4.56	4.62	5.90	High 15 yrs	4.67	4.72	6.01
20 yrs	4.55	4.61	5.88				

Coupon Bands: Medium: 8%-10¾%, High: 11% and over † Flat yield. ytd Year to date.

Real yield	Inflation 0% Mar 17	Inflation 0% Dur yrs	Inflation 0% Mar 16	Inflation 0% Yr ago	Inflation 5% Mar 17	Inflation 5% Dur yrs	Inflation 5% Mar 16	Inflation 5% Yr ago
Up to 5 yrs	3.11	3.29	3.09	3.65	2.34	3.29	2.32	2.77
Over 5 yrs	1.98	13.32	1.98	3.12	1.79	13.42	1.79	2.88
5-15 yrs	2.04	9.68	2.04	3.21	1.79	9.71	1.78	2.85
Over 15 yrs	1.94	17.04	1.94	3.07	1.80	17.13	1.80	2.89
All Stocks	2.03	11.77	2.03	3.13	1.82	11.86	1.81	2.88

FT Fixed Interest Indices

	Mar 17	Mar 16	Mar 15	Mar 12	Mar 11	Yr ago	High*	Low*
Govt. Secs. (UK)	116.19	115.72	115.23	115.28	115.04	104.22	117.17	93.31
Fixed Interest	154.89	154.24	153.97	153.92	153.74	140.98	158.45	115.32

 * for 1998/99. Government Securities high since compilation: 127.40 (1/9/35), low 49.18 (1/3/75). Fixed Interest high since compilation: 158.45 (22/01/99), low 50.53 (3/1/75). Basis 100: Government Securities 15/10/26 and Fixed Interest 1928. SE activity indices rebased 1974

UK GILTS PRICES

	Notes	Yield Int	Yield Red	Price £	+ or -	52 week High	52 week Low
Shorts" (Lives up to Five Years)							
Treas Flg Rate 1999		-	-	100.0000		100.23	100.00
Exch 12¼pc 1999		12.25	5.32	100.0000	-.1643	105.09	100.00
Treas 10½pc 1999		10.41	5.13	100.8005	-.0134	104.02	100.80
Treas 6pc 1999		5.97	4.86	100.4321	+.0022	100.50	98.64
Conv 10¼pc 1999		9.90	4.82	103.5158	-.0030	105.49	103.51
[illegible]							

	Notes	Yield Int	Yield Red	Price £	+ or -	52 week High	52 week Low
Exch 10½pc 2005	☆	7.93	4.70	132.3555xd	+.4063	135.48	124.50
Treas 12½pc 2003-5		9.45	4.32	132.3419	+.2868	135.55	127.40
Treas 8½pc 2005		6.95	4.60	122.3826	+.4102	125.31	113.65
Conv 9½pc 2005	☆	7.35	4.73	132.6310	+.5136	136.21	123.98
Treas 7¾pc 2006		6.50	4.66	119.3179	+.4306	122.40	110.47
[illegible]							

	Notes	Yield (1)	Yield (2)	Price £	+ or -	52 week High	52 week Low
Index-Linked	(b)						
2½pc '99	☆	1.73	3.21	195.8706	-.0848	198.18	190.29
2½pc '01	(78.3)	2.62	3.03	202.8708xd	-.0848	208.40	197.11
2½pc '03	(78.8)	2.19	2.44	204.8267	-.1121	207.83	194.57
4⅜pc '04	(135.6)	1.87	2.07	133.0440	-.0804	134.39	125.70
[illegible]							

Other Fixed Interest

[illegible]

Rate futures rise as Bank doves sing

MARKETS REPORT

By Alan Beattie

Short sterling prices rose yesterday as the Bank of England hinted that more interest rate cuts were on the way, appearing to defy its official policy of taking each month as it comes.

The minutes of the Bank's monetary policy committee meeting for March, released yesterday, showed an 8-1 majority for keeping rates on hold but suggested that the MPC was more likely than not to cut in future months.

Prices of short sterling contracts expiring throughout the rest of 1999 rose on the news. The September contract closed 5.5 basis points higher at 94.945, discounting a further cut in base rates to around 5 per cent by the autumn.

The minutes also showed the increasingly innovative ways which Willem Buiter has found to defy majority opinion – this time voting for a 40 basis point cut rather than the more traditional 25 or 50 basis point moves.

The pound appeared little affected by the news, continuing the pattern of sterling reactions over the past few months where the positive growth effect of interest rate cuts has appeared to offset the lower yield from the rate decision.

After an initial downward movement, the pound recovered to climb higher against the three other large currencies. Sterling closed up against the dollar at the end of London trading, at $1.630, and was little changed against the euro at £0.676.

The continued failure of sterling to fall since October when the spate of interest rate cuts started suggests that more cuts might be on the way. The current inflation forecast incorporates a central projection of sterling falling against its trade-weighted index according to interest rate differentials, and an upside risk for inflation that it falls even faster.

The minutes said that persistence in the strength of sterling might necessitate a boost to domestic demand.

■ The euro bounced off support levels yesterday as the market digested the failure of the European commissioners' resignations to make a significant dent in the currency.

Against the dollar, the euro rose through the $1.10 level during the European trading session and closed at $1.101, higher than Tuesday's close of $1.091. Against the yen the euro rose to Y130.4.

Analysts said that while there was little news yesterday to move the currency, the resilience of the euro to the political turmoil surrounding the European Commission lent weight to the idea that the resignation of Oskar Lafontaine had put a new floor under the currency.

Robert Lynch, currency strategist for Paribas in New York, said the growing conviction that the European Central Bank will not cut interest rates tomorrow may also have given the euro a small boost in the near term.

Mr Lynch said that the euro could easily reach the post-Lafontaine highs around $1.105. "But after that comes the trend line from the highs of early January at around $1.112, which will be hard to get past," he said.

■ The yen had a quiet day yesterday, falling at first before recapturing some of its recent gains against the dollar.

The yen closed in London at Y118.4 after bouncing between its opening value in Asia of Y117.15 and the low of just over Y119.

Early weakness in the yen came after the Ministry of Finance announced the Trust Fund Bureau would continue to buy JGBs in the next fiscal year.

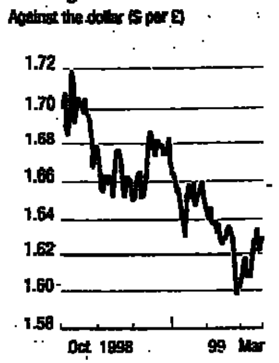
Divyang Shah, global strategist at the economic consultancy IDEA in London, said he did not expect much upwards action from the yen for the rest of the week.

"Over the next couple of days we'll see a downside for the yen," said Mr Shah. There was no momentum to drive the yen up apart from what was happening on the Nikkei, he added.

"Recent activity on the foreign exchange, stock and bond markets has been driven mostly by the fiscal year-end," he said.

Mr Shah said that Japanese officials were trying to prevent the yen from rising before the end of March.

Sterling
Against the dollar ($ per £)



Source: Datastream/ICV

■ POUND IN NEW YORK

Mar 17	—Latest—	– Prev. close –
£ spot	1.6320	1.6280
1 mth	1.6313	1.6273
3 mth	1.6307	1.6265
1 yr	1.6324	1.6282

■ OTHER CURRENCIES

Mar 17	£	$
Czech Rp	56.0443 - 56.1502	34.4020 - 34.4480
Hungary	375.801 - 376.497	230.680 - 230.980
Iran	4890.00 - 4887.30	3000.00 - 3000.00
Kuwait	0.4957 - 0.4965	0.3043 - 0.3046
Peru	5.4982 - 5.5061	3.3750 - 3.3780
Poland	6.3633 - 6.3798	3.9060 - 3.9140
Russia	38.4386 - 38.5088	23.5950 - 23.6250
U.A.E.	5.9832 - 5.9872	3.6727 - 3.6731

POUND SPOT FORWARD AGAINST THE POUND

Mar 17		Closing mid-point	Change on day	Bid/offer spread	Day's mid high	Day's mid low	One month Rate	One month %PA	Three months Rate	Three months %PA	One year Rate	One year %PA	Bank of Eng. Index
Europe													
Austria*	(Sch)	20.3698	-0.1196	586 - 810	20.4463	20.3550	20.3291	2.4	20.2525	2.3	19.9301	2.2	102.7
Belgium*	(BFr)	59.7165	-0.3506	837 - 492	59.9410	59.6810	59.5972	2.4	59.3726	2.3	58.4275	2.2	102.3
Denmark	(DKr)	11.0003	-0.0677	948 - 058	11.0436	10.9930	10.9809	2.1	10.9447	2.0	10.7998	1.8	105.7
Finland*	(FM)	8.8017	-0.0517	968 - 065	8.8350	8.7950	8.7841	2.4	8.7509	2.3	8.6117	2.2	81.2
France*	(FFr)	9.7104	-0.0570	050 - 157	9.7488	9.7030	9.691	2.4	9.6545	2.3	9.5006	2.2	105.8
Germany*	(DM)	2.8953	-0.0170	937 - 969	2.9069	2.8931	2.8895	2.4	2.8786	2.3	2.8328	2.2	103.4
Greece	(Dr)	475.389	-3.0810	964 - 813	477.062	474.630	477.003	-4.1	480.191	-4.0	491.132	-3.3	62.8
Ireland*	(I£)	1.1659	-0.0068	652 - 665	1.1703	1.1650	1.1635	2.4	1.1591	2.3	1.1407	2.2	93.2
Italy*	(L)	2866.32	-16.8300	475 - 790	2877.09	2860.44	2860.6	2.4	2849.81	2.3	2804.45	2.2	75.3
Luxembourg*	(LFr)	59.7165	-0.3506	837 - 492	59.9410	59.6800	59.5972	2.4	59.3726	2.3	58.4275	2.2	102.3
Netherlands*	(Fl)	3.2622	-0.0192	604 - 640	3.2745	3.2600	3.2557	2.4	3.2433	2.3	3.1917	2.2	101.7
Norway	(NKr)	12.6290	-0.0858	206 - 374	12.7022	12.6185	12.6481	-1.8	12.6761	-1.5	12.6992	-0.6	93.0
Portugal*	(Es)	296.780	-1.7420	617 - 943	297.896	296.580	296.187	2.4	295.071	2.3	290.374	2.2	91.8
Spain*	(Pta)	246.307	-1.4460	172 - 442	247.230	246.050	245.815	2.4	244.898	2.3	240.99	2.2	76.6
Sweden	(SKr)	13.2950	-0.0576	835 - 065	13.3431	13.2659	13.2699	2.3	13.2226	2.2	13.0434	1.9	81.8
Switzerland	(SFr)	2.3652	-0.0154	637 - 666	2.3751	2.3620	2.3567	4.3	2.3407	4.1	2.2797	3.6	107.3
UK	(£)	-	-	-	-	-	-	-	-	-	-	-	102.4
Euro	(€)	1.4803	-0.0087	795 - 811	1.4866	1.4785	1.4773	2.4	1.4717	2.3	1.4483	2.2	-
SDR†	-	1.189300	-	-	-	-	-	-	-	-	-	-	-
Americas													
Argentina	(Peso)	1.6294	+0.0053	289 - 298	1.6313	1.6242	-	-	-	-	-	-	-
Brazil	(R$)	3.0514	+0.0343	464 - 563	3.0612	3.0378	-	-	-	-	-	-	-
Canada	(C$)	2.4774	-0.0057	759 - 789	2.4903	2.4723	2.4766	0.4	2.4757	0.3	2.4768	0.0	77.2
Mexico	(New Peso)	15.7985	+0.0996	860 - 110	15.8140	15.7242	16.0605	-19.9	16.5258	-18.4	18.9505	-20.0	-
USA	($)	1.6296	+0.0053	291 - 300	1.6315	1.6244	1.6289	0.5	1.6282	0.3	1.6302	0.0	107.6
Pacific/Middle East/Africa													
Australia	(A$)	2.6010	+0.0015	982 - 038	2.6114	2.5904	2.5996	0.6	2.5974	0.5	2.5939	0.3	80.2
Hong Kong	(HK$)	12.6285	+0.0408	242 - 328	12.6428	12.5891	12.6261	0.2	12.6372	-0.3	12.892	-2.1	-
India	(Rs)	69.1255	+0.2430	901 - 609	69.2030	68.9560	69.6174	-8.5	70.4175	-7.5	74.4204	-7.7	-
Indonesia	(Rupiah)	14706.70	+339.76	190 - 150	1475.20	14338.70	15050.66	-28.1	15918.27	-33.0	19276.62	-31.1	-
Israel	(Shk)	6.5409	-0.0159	325 - 492	6.5831	6.5200	-	-	-	-	-	-	-
Japan	(Y)	192.971	+1.5150	853 - 090	193.790	191.040	192.106	5.4	190.411	5.3	183.456	4.9	130.8
Malaysia‡	(M$)	6.1923	+0.0199	460 - 509	6.1994	6.1730	-	-	-	-	-	-	-
New Zealand	(NZ$)	3.0998	+0.0243	960 - 036	3.1054	3.0854	3.0975	0.9	3.0942	0.7	3.0913	0.3	90.9
Philippines	(Peso)	63.3898	+0.3342	276 - 515	63.6910	63.1006	63.7886	-7.6	64.518	-7.1	68.178	-7.6	-
Saudi Arabia	(SR)	6.1114	+0.0198	095 - 133	6.1185	6.0923	6.117	-1.1	6.133	-1.4	6.2212	-1.8	-
Singapore	(S$)	2.8095	+0.0116	079 - 111	2.8132	2.8006	2.8009	3.7	2.7854	3.3	2.742	2.4	-
South Africa	(R)	10.1387	-0.0363	297 - 476	10.2339	10.1250	10.224	-10.1	10.3808	-9.5	10.98	-8.3	-
South Korea	(Won)	1999.46	+7.2800	728 - 164	2002.09	1994.76	-	-	-	-	-	-	-
Taiwan	(T$)	54.0196	+0.2633	232 - 160	54.1170	53.9210	54.2002	-4.0	54.5023	-3.6	55.3844	-2.5	-
Thailand	(Bt)	60.8067	+0.3908	328 - 805	60.8970	60.5780	60.9031	-1.9	61.2103	-2.7	62.9402	-3.5	-

† Rates for Mar 16. Bid/offer spreads in the Pound Spot table show only the last three decimal places. Sterling index calculated by the Bank of England. Base average 1990 = 100. Index rebased 1/2/95. * EMU member. The exchange rates printed in this table are also available on the internet at http://www.FT.com.

DOLLAR SPOT FORWARD AGAINST THE DOLLAR

Mar 17		Closing mid-point	Change on day	Bid/offer spread	Day's mid high	Day's mid low	One month Rate	One month %PA	Three months Rate	Three months %PA	One year Rate	One year %PA	J.P. Morgan Index
Europe													
Austria*	(Sch)	12.5003	-0.1140	969 - 037	12.5780	12.4810	12.4806	1.9	12.439	2.0	12.2259	2.2	102.2
Belgium*	(BFr)	36.6460	-0.3343	360 - 560	36.8740	36.5890	36.5883	1.9	36.4683	2.0	35.8417	2.2	102.2
Denmark	(DKr)	6.7505	-0.0635	490 - 520	6.7918	6.7428	6.7415	1.6	6.7222	1.7	6.625	1.9	104.6
Finland*	(FM)	5.4013	-0.0493	998 - 028	5.4349	5.3930	5.3928	1.9	5.3748	2.0	5.2828	2.2	80.3
France*	(FFr)	5.9589	-0.0544	573 - 605	5.9960	5.9497	5.9495	1.9	5.9297	2.0	5.8281	2.2	104.8
Germany*	(DM)	1.7768	-0.0162	763 - 772	1.7878	1.7740	1.7739	1.9	1.768	2.0	1.7378	2.2	102.8
Greece	(Dr)	291.730	-2.8400	550 - 910	293.510	291.310	292.845	-4.6	294.93	-4.4	301.28	-3.3	62.4
Ireland*	(I£)	1.3977	+0.0128	973 - 981	1.3999	1.3891	1.3999	-1.9	1.4046	-2.0	1.4291	-2.2	-
Italy*	(L)	1758.97	-16.0400	849 - 945	1769.90	1756.25	1756.2	1.8	1750.34	2.0	1720.37	2.2	74.9
Luxembourg*	(LFr)	36.6460	-0.3343	360 - 560	36.8740	36.5890	36.5883	1.9	36.4683	2.0	35.8417	2.2	102.2
Netherlands*	(Fl)	2.0020	-0.0182	014 - 025	2.0144	1.9988	1.9988	1.9	1.9921	2.0	1.958	2.2	101.4
Norway	(NKr)	7.7500	-0.0840	470 - 530	7.8112	7.7390	7.765	-2.3	7.7855	-1.8	7.7903	-0.5	91.9
Portugal*	(Es)	182.124	-1.6610	074 - 174	183.260	181.840	181.837	1.9	181.231	2.0	178.127	2.2	92.1
Spain*	(Pta)	151.150	-1.3790	109 - 191	152.090	150.920	150.912	1.9	150.409	2.0	147.833	2.2	76.0
Sweden	(SKr)	8.1587	-0.0618	539 - 635	8.2073	8.1411	8.1468	1.8	8.1213	1.8	8.0014	1.9	81.4
Switzerland	(SFr)	1.4514	-0.0148	509 - 519	1.4610	1.4480	1.4468	3.8	1.4378	3.8	1.3984	3.7	106.6
UK	(£)	1.6296	+0.0053	291 - 300	1.6315	1.6244	1.6289	0.5	1.6282	0.3	1.6302	0.0	102.3
Euro	(€)	1.1008	+0.0098	005 - 011	1.1025	1.0940	1.1025	-1.9	1.1062	-2.0	1.1256	-2.2	-
SDR†	-	0.73285	-	-	-	-	-	-	-	-	-	-	-
Americas													
Argentina	(Peso)	0.9999	-	998 - 999	1.0000	0.9998	-	-	-	-	-	-	-
Brazil	(R$)	1.8725	+0.0150	700 - 750	1.8800	1.8700	-	-	-	-	-	-	-
Canada	(C$)	1.5203	-0.0064	198 - 208	1.5278	1.5197	1.5205	-0.2	1.5207	-0.1	1.5193	0.1	76.7
Mexico	(New Peso)	9.6950	+0.0300	900 - 000	9.7120	9.6850	9.86	-20.4	10.15	-18.8	11.625	-19.9	-
USA	($)	-	-	-	-	-	-	-	-	-	-	-	109.2
Pacific/Middle East/Africa													
Australia	(A$)	1.5962	-0.0042	949 - 974	1.6031	1.5941	1.5958	0.3	1.5954	0.2	1.5947	0.1	80.2
Hong Kong	(HK$)	7.7497	-0.0001	492 - 502	7.7510	7.7490	7.7515	-0.3	7.7617	-0.6	7.9085	-2.0	-
India	(Rs)	42.4200	+0.0125	100 - 300	42.5500	42.3900	42.74	-9.1	43.25	-7.8	45.6525	-7.6	-
Indonesia	(Rupiah)	9025.00	+180.0000	000 - 000	9060.00	8800.00	9240	-28.6	9777.5	-33.4	11825	-31.0	-
Israel	(Shk)	4.0139	-0.0228	099 - 179	4.0365	4.0050	-	-	-	-	-	-	-
Japan	(Y)	118.420	+0.5500	380 - 460	119.150	117.150	117.94	4.9	116.955	4.9	112.54	5.0	133.5
Malaysia‡	(M$)	3.8000	-1.6300	000 - 300	3.8000	3.8000	-	-	-	-	-	-	-
New Zealand	(NZ$)	1.9022	+0.0088	004 - 040	1.9068	1.8943	1.9004	1.1	1.8988	0.7	1.8991	0.2	-
Philippines	(Peso)	38.9000	+0.0800	500 - 500	39.0500	38.7500	39.1615	-8.1	39.6265	-7.5	41.823	-7.5	-
Saudi Arabia	(SR)	3.7504	+0.0001	502 - 505	3.7505	3.7500	3.7554	-1.6	3.7669	-1.8	3.8164	-1.8	-
Singapore	(S$)	1.7241	+0.0016	236 - 246	1.7275	1.7187	1.7195	3.2	1.7114	2.9	1.6821	2.4	-
South Africa	(R)	6.2218	-0.0425	180 - 255	6.2850	6.2170	6.2768	-10.6	6.3758	-9.9	6.7365	-8.3	-
South Korea	(Won)	1227.00	+0.5000	600 - 800	1228.50	1225.50	-	-	-	-	-	-	-
Taiwan	(T$)	33.1500	+0.0550	000 - 000	33.3000	32.2000	33.275	-4.5	33.475	-3.9	33.975	-2.5	-
Thailand	(Bt)	37.3150	+0.1200	800 - 500	37.4000	37.1900	37.39	-2.4	37.585	-3.0	38.61	-3.5	-

† SDR rate per $ for Mar 16. ‡ Official rate set by Malaysian government. The WM/Reuters rate for the valuation of capital assets is 5.43 MYR/USD, a discount of 30% on the official rate. Bid/offer spreads in the Dollar Spot table show only the last three decimal places. UK, Ireland & Euro are quoted in US currency. J.P. Morgan nominal indices Mar 16: Base average 1990=100. Bid, offer, mid spot rates and forward rates in both this and the Dollar table are derived from THE WM/REUTERS 4pm CLOSING SPOT and FORWARD RATE services. Some values are rounded by the F.T. * EMU member. The exchange rates printed in this table are also available on the internet at http://www.FT.com

WORLD INTEREST RATES

MONEY RATES

Mar 17	Over night	One month	Three mths	Six mths	One year	Lomb. inter.	Dis. rate	Repo rate
Euro-zone	3	3 1/32	3 1/32	3	3	-	3.00	3.00
Switzerland	1¼	1⅜	1¼	1⅜	1⅜	-	1.00	-
US	4¾	4⅞	4⅞	5	5¼	-	4.50	-
Japan	½	⅛	⅛	⅛	⅛	-	0.50	-
■ $ LIBOR BBA London								
Interbank Fixing	-	4⅞	5	5⅛	5⅜	-	-	-
US Dollar CDs	-	4.72	4.77	4.83	5.01	-	-	-
Euro Linked Ds	-	3 1/32	3 1/32	3 1/32	3 1/32	-	-	-
SDR Linked Ds	-	3⅜	3¼	3⅜	3 1/32	-	-	-
BBA Euro Libor	-	3⅛	3⅛	3⅛	3⅛	-	-	-
Euro Euribor	-	3.042	3.038	3.017	3.027	-	-	-
EONIA	2.98	-	-	-	-	-	-	-
EURONIA	2.9886	-	-	-	-	-	-	-

London interbank fixing rate (LIBOR) is the BBA London rate, fixed at 11am. Mid rates are shown for the domestic Money Rates, US$ CDs, Euro & SDR Linked Deposits (Ds).

INTERNATIONAL CURRENCY RATES

Mar 17	Short term	7 days notice	One month	Three months	Six months	One year
Euro	3 - 2 29/32	3⅛ - 2⅞	3⅛ - 2⅞	3⅛ - 2⅞	3⅛ - 2⅞	3⅛ - 2⅞
Danish Krone	3⅜ - 3¼	3⅛ - 3⅜	3⅛ - 3⅜	3⅛ - 3⅜	3⅛ - 3⅜	3⅜ - 3⅜
Sterling	5⅛ - 5⅛	5⅝ - 5½	5⅝ - 5½	5¾ - 5⅝	5⅛ - 5⅛	5⅝ - 5¼
Swiss Franc	1½ - 1	1⅛ - 1	1½ - 1½	1⅜ - 1⅜	1⅝ - 1½	1½ - 1¾
Canadian Dollar	5 - 4⅞	5⅛ - 4⅞	5⅛ - 4⅞	5⅛ - 4⅞	5⅛ - 4⅞	5¼ - 5⅛
US Dollar	4⅞ - 4⅞	4⅞ - 4¾	4⅞ - 4⅞	5 - 4⅞	5⅛ - 4⅞	5⅜ - 5⅛
Japanese Yen	⅛ - ⅛	⅛ - ⅛	⅛ - ⅛	⅛ - ⅛	⅛ - ⅛	⅛ - ⅛
Asian $Sing	⅛ - -	1⅛ - ⅝	1½ - 1⅛	1¾ - 1½	2⅛ - 1⅞	2⅝ - 2½

Short term rates are call for the US Dollar and Yen, others: two days' notice.

■ THREE MONTH EURIBOR FUTURES (MATIF) Paris Interbank offered rate

	Open	Sett price	Change	High	Low	Est. vol	Open int.
Jun	97.100	97.115	+0.020	97.125	97.100	3,995	36,767
Sep	97.120	97.135	+0.015	97.145	97.120	3,616	25,451

■ THREE MONTH EURIBOR FUTURES (LIFFE) €1m 100 - rate

	Open	Sett price	Change	High	Low	Est. vol	Open int.
Jun	97.105	97.110	+0.010	97.125	97.100	35944	182193
Sep	97.120	97.135	+0.010	97.150	97.120	27343	147264
Dec	96.900	96.900	+0.010	96.910	96.885	6521	93633
Mar	97.040	97.035	+0.005	97.055	97.025	10763	76613

■ THREE MONTH EURO LIBOR FUTURES (LIFFE) €1m 100 - rate

	Open	Sett price	Change	High	Low	Est. vol	Open int.
Jun	97.105	97.110	+0.010	97.120	97.105	454	106358
Sep	97.135	97.135	+0.010	97.140	97.135	596	93101
Dec	96.890	96.900	+0.010	96.890	96.885	49	83500
Mar	97.040	97.035	+0.005	97.040	97.040	25	84314

■ EURIBOR OPTIONS (LIFFE) €1m 100 - rate

Strike Price	Calls Jun	Calls Sep	Calls Dec	Calls Mar	Puts Jun	Puts Sep	Puts Dec	Puts Mar
97000	0.150	0.210	0.150	0.240	0.040	0.075	0.250	0.205
97125	0.080				0.095			
97250	0.035	0.085	0.070	0.125	0.175	0.200	0.420	0.340
97375	0.020				0.285			

Est. vol. total, Calls 83399 Puts 7165. Previous day's open int., Calls 222001 Puts 81133

■ THREE MONTH EURO LIBOR OPTIONS (LIFFE) €1m 100 - rate

Strike Price	Calls Jun	Calls Sep	Calls Dec	Calls Mar	Puts Jun	Puts Sep	Puts Dec	Puts Mar
97000	0.150	0.210	0.150	0.240	0.040	0.075	0.250	0.205
97125	0.080				0.095			
97250	0.035	0.085	0.070	0.125	0.175	0.200	0.420	0.340
97375	0.020				0.285			

Est. vol. total, Calls 256 Puts 256. Previous day's open int., Calls 163763 Puts 96243

■ THREE MONTH EURO SWISS FRANC FUTURES (LIFFE) SFr1m 100 - rate

	Open	Sett price	Change	High	Low	Est. vol	Open int.
Jun	98.610	98.640	+0.030	98.650	98.610	10756	80317
Sep	98.480	98.520	+0.030	98.520	98.480	3435	41958
Dec	98.190	98.200	+0.030	98.200	98.170	1700	18797
Mar	98.220	98.230	+0.010	98.230	98.220	481	8805

■ THREE MONTH EUROYEN FUTURES (LIFFE) Y100m 100 - rate

	Open	Sett price	Change	High	Low	Est. vol	Open int.
Jun	-	99.81	-	-	-	0	n/a
Sep	-	99.77	-0.01	-	-	0	n/a
Dec	-	99.57	-0.01	-	-	0	n/a

* LIFFE futures also traded on APT

■ EURO SWISS FRANC OPTIONS (LIFFE) SFr1m 100 - rate

Strike Price	Calls Jun	Calls Sep	Calls Dec	Puts Jun	Puts Sep	Puts Dec
98750	0.100	0.120	0.090	0.210	0.350	0.640
98875	0.060			0.295		

Est. vol. total, Calls 400 Puts 400. Previous day's open int., Calls 2900 Puts 3100

CROSS RATES AND DERIVATIVES

EXCHANGE CROSS RATES

Mar 17		BFr	DKr	FFr	DM	I£	L	Fl	NKr	Es	Pta	SKr	SFr	£	C$	$	Y	€
Belgium*	(BFr)	100	18.42	16.26	4.848	1.952	4800	5.463	21.15	497.0	412.5	22.26	3.961	1.675	4.149	2.729	323.1	2.479
Denmark	(DKr)	54.29	10	8.827	2.632	1.060	2606	2.966	11.48	269.8	223.9	12.09	2.150	0.909	2.252	1.481	175.4	1.346
France*	(FFr)	61.50	11.33	10	2.982	1.201	2952	3.360	13.01	305.6	253.7	13.69	2.436	1.030	2.551	1.678	198.7	1.525
Germany*	(DM)	20.63	3.799	3.354	1	0.403	990.0	1.127	4.362	102.5	85.07	4.592	0.817	0.345	0.856	0.563	66.65	0.511
Ireland*	(I£)	51.22	9.435	8.329	2.483	1	2459	2.798	10.83	254.6	211.3	11.40	2.029	0.858	2.125	1.398	165.5	1.270
Italy*	(L)	2.083	0.384	0.339	0.101	0.041	100	0.114	0.441	10.35	8.593	0.464	0.083	0.035	0.086	0.057	6.732	0.052
Netherlands*	(Fl)	18.31	3.372	2.977	0.888	0.357	878.6	1	3.871	90.97	75.50	4.075	0.725	0.307	0.759	0.500	59.15	0.454
Norway	(NKr)	47.29	8.710	7.689	2.293	0.923	2270	2.583	10	235.0	195.0	10.53	1.873	0.792	1.962	1.290	152.8	1.172
Portugal*	(Es)	20.12	3.707	3.272	0.976	0.393	965.8	1.099	4.255	100	82.99	4.480	0.797	0.337	0.835	0.549	65.02	0.499
Spain*	(Pta)	24.24	4.466	3.942	1.175	0.473	1164	1.324	5.127	120.5	100	5.398	0.960	0.406	1.006	0.662	78.35	0.601
Sweden	(SKr)	44.92	8.274	7.304	2.178	0.877	2156	2.454	9.499	223.2	185.3	10	1.779	0.752	1.863	1.226	145.1	1.113
Switzerland	(SFr)	25.25	4.651	4.106	1.224	0.493	1212	1.379	5.340	125.5	104.1	5.621	1	0.423	1.047	0.689	81.59	0.626
UK	(£)	59.71	11.00	9.709	2.895	1.166	2866	3.262	12.63	296.7	246.3	13.30	2.365	1	2.477	1.630	193.0	1.480
Canada	(C$)	24.10	4.440	3.919	1.169	0.471	1157	1.317	5.098	119.8	99.42	5.367	0.955	0.404	1	0.658	77.89	0.598
USA	($)	36.65	6.751	5.959	1.777	0.715	1759	2.002	7.750	182.1	151.2	8.159	1.451	0.614	1.520	1	118.4	0.908
Japan	(Y)	30.95	5.700	5.032	1.500	0.604	1485	1.691	6.545	153.8	127.6	6.890	1.226	0.518	1.284	0.844	100	0.767
Euro	(€)	40.34	7.431	6.560	1.956	0.788	1936	2.204	8.531	200.5	166.4	8.981	1.598	0.676	1.674	1.101	130.4	1

Danish Kroner, French Franc, Norwegian Kroner, and Swedish Kronor per 10; Belgian Franc, Yen, Escudo, Lira and Peseta per 100. * EMU member.

■ D-MARK FUTURES (CME) DM 125,000 per DM

	Open	Latest	Change	High	Low	Est. vol	Open int.
Jun	0.5650	0.5668	+0.0018	0.5670	0.5619	12,641	31,760
Sep	-	0.5695	+0.0015	0.5695	0.5665	100	1,215
Dec	-	0.5712	-	-	-	6	96

■ SWISS FRANC FUTURES (CME) SFr 125,000 per SFr

	Open	Latest	Change	High	Low	Est. vol	Open int.
Jun	0.6943	0.6973	+0.0029	0.6982	0.6907	14,907	57,908
Sep	-	0.7020	+0.0013	0.7020	0.6980	5	311
Dec	-	0.7071	-	-	-	7	6

■ JAPANESE YEN FUTURES (CME) Yen 12.5m per Yen 100

	Open	Latest	Change	High	Low	Est. vol	Open int.
Jun	0.8593	0.8562	-0.0034	0.8648	0.8490	18,106	72,440
Sep	0.8635	0.8668	-0.0038	0.8675	0.8631	9	1,572
Dec	0.8753	0.8780	-0.0034	0.8780	0.8746	4	414

■ STERLING FUTURES (CME) £62,500 per £

	Open	Latest	Change	High	Low	Est. vol	Open int.
Jun	1.6276	1.6296	+0.0020	1.6316	1.6230	5,721	53,836
Sep	-	1.6310	+0.0032	1.6320	1.6240	1	1,252
Dec	-	1.6320	+0.0036	1.6320	1.6250	30	30

UK INTEREST RATES

LONDON MONEY RATES

Mar 17	Over-night	7 days notice	One month	Three months	Six months	One year
Interbank Sterling	5⅝ - 4½	5½ - 5⅜	5⅛ - 5⅝	5¾ - 5¼	5⅜ - 5⅜	5⅜ - 5⅛
Sterling CDs	-	-	5⅝ - 5¾	5⅜ - 5¼	5¼ - 5⅜	5¼ - 5⅜
Treasury Bills	-	-	5⅜ - 5¼	5⅜ - 5⅜	-	-
Bank Bills	-	-	5⅛ - 5¼	5⅛ - 5⅜	-	-
Local authority deps.	5¼ - 5⅛	5¾ - 5¼	5⅝ - 5⅝	5⅜ - 5¼	5¼ - 5⅛	5¼ - 5⅛
Discount Market deps	5⅛ - 5¼	5⅛ - 5¼	-	-	-	-

UK clearing bank base lending rate 5½ per cent from Feb 4, 1999

	Up to 1 month	1-3 month	3-6 months	6-9 months	9-12 months
Certs of Tax dep. (£100,000)	4	6.5	6.5	6.25	6.25

Certs of Tax dep. under £100,000 is 4pc. Deposits withdrawn for cash 2pc. Ave. tender rate of discount on Mar 12, 4.8934pc. ECGD fixed rate Stg. Export Finance. Make up day Feb 26, 1999. Agreed rate for period Mar 24, 1999 to Apr 23, 1999, Scheme III 6.80pc. Reference rate for period Jan 30, 1999 to Feb 26, 1999, Schemes IV & V 5.650pc. Finance House Base Rate 6.0pc for Mar 1999.

■ THREE MONTH STERLING FUTURES (LIFFE) £500,000 points of 100%

	Open	Sett price	Change	High	Low	Est. vol	Open int.
Mar	94.580	94.580	+0.005	94.590	94.570	15632	149174
Jun	94.830	94.865	+0.045	94.880	94.790	48415	171685
Sep	94.900	94.945	+0.055	94.970	94.860	47138	183174
Dec	94.700	94.755	+0.065	94.770	94.670	12739	142156
Mar	94.820	94.880	+0.060	94.890	94.800	15116	131831

Also traded on APT. All Open interest figs. are for previous day

■ SHORT STERLING OPTIONS (LIFFE) £500,000 points of 100%

Strike Price	Calls Mar	Calls Jun	Calls Sep	Puts Mar	Puts Jun	Puts Sep
94500	0.080	0.395	0.510	0	0.030	0.065
94625	0			0.045		
94750	0	0.205	0.325	0.170	0.090	0.130
94875	0			0.295		
95000	0	0.080	0.160	0.420	0.215	0.235
95125	0			0.545		

Est. vol. total, Calls 15616 Puts 13647. Previous day's open int., Calls 821861 Puts 682320

EMS EUROPEAN CURRENCY UNIT RATES

Mar 17	Euro cen. rates	Rate against Euro €	Change on day	% +/- from cen. rate	% spread v weakest	Div. ind.
Greece	353.109	321.18	-0.12	-9.04	9.52	61
Denmark	7.46038	7.4317	-0.0005	-0.38	0.00	3
NON ERM MEMBERS						
UK	0.653644	0.67440	+0.0041	3.18	-3.45	-

Euro central rates set by the European Commission. Currencies are in descending relative strength. Percentage changes are for Euro; a positive change denotes a weak currency. Divergence shows the ratio between two spreads: the percentage difference between the actual market and Euro central rates for a currency, and the maximum permitted percentage deviation of the currency's market rate from its Euro central rate. 17/9/92: Sterling suspended from ERM. 16/3/98. Adjustment calculated by the Financial Times.

■ PHILADELPHIA SE £/$ OPTIONS £31,250 (cents per pound)

Strike Price	Calls Apr	Calls May	Calls Jun	Puts Apr	Puts May	Puts Jun
1.610	2.51	3.07	3.44	0.86	1.36	1.79
1.620	1.93	2.51	2.87	1.17	1.76	2.06
1.630	1.44	1.90	2.46	1.60	2.25	2.66

Previous day's vol., Calls - Puts - . Prev. day's open int., Calls 827 Puts 1,342

■ PHILADELPHIA SE D-MARK/$ OPTIONS DM62,500 ($ per DM)

Strike Price	Calls Apr	Calls May	Calls Jun	Puts Apr	Puts May	Puts Jun
0.550	-	-	-	0.18	0.33	0.44
0.555	1.08	1.31	1.52	0.29	0.44	0.60
0.560	0.76	1.02	1.25	0.45	0.63	0.75

Previous day's vol., Calls 0 Puts 0 . Prev. day's open int., Calls 126 Puts 117

■ THREE MONTH EURODOLLAR (CME) $1m points of 100%

	Open	Latest	Change	High	Low	Est. vol	Open int.
Jun	94.95	94.95	-	94.96	94.94	61,407	468,895
Sep	94.87	94.84	-0.02	94.87	94.84	99,603	454,732
Dec	94.55	94.52	-0.03	94.56	94.51	32,258	339,027

■ US TREASURY BILL FUTURES (CME) $1m per 100%

	Open	Latest	Change	High	Low	Est. vol	Open int.
Jun	95.57	95.56	-0.01	95.59	95.57	1	2,171

BASE LENDING RATES

	%		%		%
Adam & Company	5.50	Exeter Trust Limited	6.50	Smith & Williamson	5.50
Allied Irish Bank (GB)	5.50	●Robert Fleming & Co	5.50	Sun Bank	5.50
●Henry Ansbacher	5.50	Habib Bank AG Zurich	5.50	TSB	5.50
Banco Bilbao Vizcaya	5.50	Heritable & Gen Inv Bk	5.50	United Bank of Kuwait	5.50
Bank of Cyprus	5.50	C. Hoare & Co	5.50	Unity Trust Bank Plc	5.50
Bank of Ireland	5.50	●SG Hambros Bank & Trust	5.50	Whiteaway Laidlaw	5.50
Bank of India	5.50	Hongkong & Shanghai	5.50	Yorkshire Bank	5.50
Bank of Scotland	5.50	Investec Bank (UK) Ltd	5.50		
Barclays Bank	5.50	Julian Hodge Bank	5.50		
Brit Bk of Mid East	5.50	●Leopold Joseph & Sons	5.50		
●Brown Shipley & Co Ltd	5.50	Lloyds Bank	5.50		
Citibank NA	5.50	Midland Bank	5.50		
Clydesdale Bank	5.50	NatWestminster	5.50		
The Co-operative Bank	5.50	●Rea Brothers	5.50		
Coutts & Co	5.50	Royal Bk of Scotland	5.50		
Cyprus Popular Bank	5.50	Scottish Widows Bank	5.50		
Duncan Lawrie	5.50	●Singer & Friedlander	5.50		

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COMMODITIES & AGRICULTURE

Oil prices rise on bullish reports

MARKETS REPORT

By Robert Corzine and Gillian O'Connor

Oil prices rose sharply yesterday as traders reacted to bullish inventory data from the US and reports that Saudi Arabia, the world's biggest crude exporter, is ready to begin informing its customers of cuts in April shipments as part of the latest global production restraint initiative.

The bellwether May Brent Blend futures contract was up 56 cents to $13.24 a barrel in late trading on London's International Petroleum Exchange. Earlier it had reached $13.33 a barrel – close to last year's average price for Brent – and the highest level for a front month Brent contract since early November.

Opec is keen to maintain the momentum for higher prices generated by last week's agreement in the run up to their meeting in Vienna next Tuesday. Non-Opec Mexico yesterday confirmed that it would cut its exports by 125,000 barrels a day as part of the global cut.

Most base metal prices firmed slightly on the London Metal Exchange yesterday, although nickel, the star performer so far this year, eased.

But analysts are increasingly puzzled by the apparent shortage of copper in the Asian region, in defiance of the hefty worldwide surplus. Prices in Shanghai, for example, are at a premium to those in London. Chinese purchases appear to offer an explanation, but analysts are uncertain how to interpret them. Barclays' latest copper letter says: "China has without doubt been a fairly heavy buyer of refined copper over the past two months. But where the metal purchased is going and why is less clear".

ECB urged to restrain gold sales

By Gwen Robinson and Stephen Wyatt in Canberra

Concerns about the impact of proposed gold sales by the International Monetary Fund on gold prices and production could be eased if the European Central Bank publicly committed itself to restraining gold sales by individual national central banks, gold experts said yesterday at a commodities conference in Canberra.

The proposal that the IMF should sell up to 10 per cent of its gold reserves, or about 10m ounces, to finance debt relief programmes, gained momentum this week following support from the US and France.

Those endorsements unnerved investors, who earlier this week drove gold prices down about $8 to $283 an ounce over two days, reversing a recent slight improvement in prices. However, the price stabilised yesterday and gold was fixed at $284.70 in London yesterday afternoon.

Robert Guy, a director of NM Rothschild & Sons, the London bullion bank, told the Canberra conference the IMF's proposal was logical, but required co-operation by central banks to help maintain gold prices.

He urged the ECB to ban gold sales by individual European central banks until the IMF sales were completed, so as to minimise disruptions to the market.

"It is true that a number of national central banks have said they have no plans to sell gold – but the market needs more than that."

Any announcement by the ECB that it would not sanction sales of gold by individual central banks at the same time as sales were being carried out by the IMF would help achieve a better price for the IMF, protect the value of Europe's own gold reserves and assist stability throughout the market as a whole, he said.

The ECB holds 15 per cent of its $55bn reserves in gold and controls the distribution of a further 11,000 tonnes in national banks.

However, some analysts have argued that the IMF's planned sale could be comfortably absorbed without special arrangements.

US proves fertile for GM crops

Use of the technology is spreading rapidly, reports **Nikki Tait**

Genes and crops

While Europe questions the merits of plant genetics, the technology is spreading rapidly on US farms.

Take corn, the largest single crop in the US with an annual value of about $20bn and grown on about 80m acres. Last year, according to the National Corn Growers Association, about 16m acres were planted with "Bt" varieties – hybrids engineered to carry the *bacillus thuringiensis* gene, a naturally-occurring organism that kills the devastating corn borer.

A further 5m-plus acres were occupied by "Liberty Link" or "Round-Up Ready" corn, produced by Pioneer Hi-Bred and Monsanto respectively and genetically-modified to tolerate certain herbicides.

In total, biotech's share of the corn crop topped 26 per cent last year, and some estimates suggest it could exceed 40 per cent this year.

For soyabeans, a $15bn annual crop occupying more than 70m acres, the story is similar. Monsanto, the St Louis-based life sciences group, claims that its popular "Round-Up Ready" beans alone accounted for more than 35 per cent of the US soyabean market in 1998.

The speed at which certain GM crops are becoming the norm in the US is hard to overstate. The first genetically-modified product – the "Flavr Savr" tomato, engineered to ripen more slowly (thus extending shelf-life) by Calgene, a Californian company later acquired by Monsanto – only hit supermarkets in 1994.

But by the end of 1996, 18 genetically-modified crops had been approved; by the end of 1998, there were about 30 transgenic plants on the US market.

"In the US we are moving enormously fast, to the point where virtually all the big crops are going to be genetically engineered in just a few years," claims Hendrick Verfaillie, Monsanto president.

Although opposition from consumer and environmental groups is not entirely muted, the debate largely centres on where the industry is heading and how quickly.

Most big life sciences groups are already looking to add "quality traits" – for example, to alter the nutritional content of either animal feed products or human foods. The first products are likely to centre on "improved" oils, derived from GM beans, corn or canola, and are due to reach the market early next century.

Further down the road, there is the possibility of using plant-based materials to replace conventional polymers and plastics.

But the agricultural biotech industry in the US faces some big hurdles.

The first concerns the efficacy of GM seeds. Environmental groups have long warned that encouraging certain traits will also encourage new resistances to develop – in crude terms, "super-pests".

The industry admits that resistances are likely at some stage, although it also adds that the best solution is to keep the technology ahead of pest development.

Even so, big suppliers of GM corn seed – including Monsanto, Dow AgroSciences, Mycogen, Novartis and Pioneer – have come together to approve a voluntary package under which at least 20 per cent of farmers' acreage would be set aside for non-Bt corn.

Such "refuges", they argue, should ensure that non-resistant pests also propagate. Nevertheless, the possibility of regulation lingers.

Second, there is the question of patent protection. The industry is awash with lawsuits as companies accuse each other of misappropriating proprietary technologies, with claims and counter-claims running to hundreds of millions of dollars.

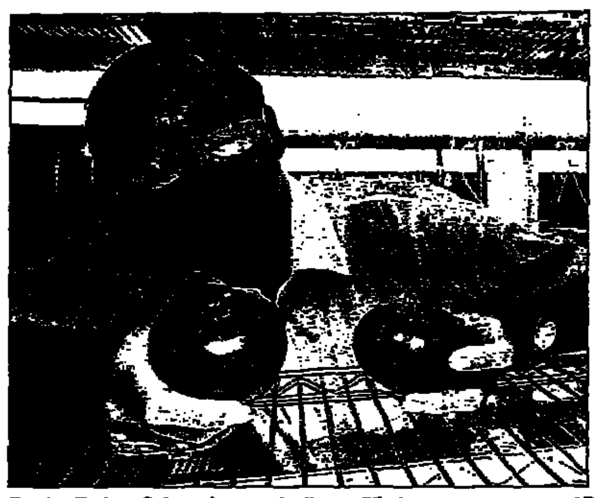
The disputes have already claimed casualties: Cargill, the big US agribusiness group, was forced to postpone plans to sell its North American seed business to AgrEvo, the joint venture between Germany's Hoechst and Schering, because of the buyer's worries over litigation filed by Pioneer.

Finally, there is the question of seed saving. Traditionally, farmers buy seed, grow a crop and then save some seeds for the following year's planting. In the case of the more expensive, value-added GM seeds, companies tend to insist that they are used just once. Farmers have been asked to sign legal agreements, an approach which has not always been well-received.

This issue has focused attention on "terminator" technology – inserting a destructive toxin into plants which will kill off new seeds that they carry. That has rung alarm-bells among environmentalists, worried about anything from "gene drift" to the degree of control it could give seed suppliers.

Biotech companies, however, say that continued innovation requires them to be able to secure returns. "We need to find ways – sensibly – to protect the technology," comments Mr Verfaillie at Monsanto.

This is the final article in this series. Previous articles appeared on March 9, 11 and 16.



Fresh offering: Calgene's genetically modified tomatoes AP

FOREST PRODUCTS FURTHER RISES SEEN

Swedish groups raise price of benchmark pulp

By Nicholas George in Stockholm

Leading Swedish pulp producers have raised the price of benchmark pulp to $480 a tonne, with analysts expecting further gentle increases later this year as cuts in production begin to pay off.

The price of the benchmark Northern Softwood Bleached Kraft has languished at about $460 a tonne since October, a four-year low. This has been caused by chronic overcapacity exacerbated by the Asian crisis, which has cut consumption in the region.

At its height in November 1995, the list price of NSBK was more than $1,000 a tonne.

Rises in the price of pulp, which is the basic raw material used in the paper industry, have traditionally had a knock-on effect on prices throughout the industry.

Both Södra (the world's largest producer of long fibre market pulp with a capacity of 1.2m tonnes) and Rottneros (a medium-sized producer with capacity of 550,000 tonnes) announced the $20 a tonne increase earlier this week.

Anders Jansson, marketing director of Rottneros, said the fall in producer inventories had prompted the rise.

Pulp inventories among North American and Scandinavian (Norscan) producers showed a fall of 38,000 tonnes in February, a month traditionally marked by a rise in inventories.

"The market is definitely showing stronger demand just now which has resulted in a decrease in Norscan stocks. On average over the past 10 years February has seen an increase of 50,000 tonnes but this year we have seen a drop of 38,000 tonnes," Mr Jansson said.

"We know Norscan inventories are going down even further in March and we are getting very close to the 1.5m tonne level, which is historically the point at which prices move upwards."

Mr Jansson pointed to demand in China as partly behind the pick-up. Here many smaller paper mills were going out of business to be replaced with much larger mills.

While the old mills were integrated producers, relying on their own supplies of pulp made from straw, the new mills were consumers of market pulp, he said.

"The tough question now is whether customers are putting the pulp in stock or is it being consumed," Mr Jansson said.

Ulf Gunnarsson, information chief at Södra, said the company had tried to raise prices twice since last autumn, but the market had not accepted the increases.

"Maybe there is room a bit further on for more increases, but we want to see this first step accepted," Mr Gunnarsson said.

Lars Kjellberg, CSFB forestry analyst, said the price increases had a good chance of sticking.

"The odds are better than in previous years as they are relying on a cut in supply," he said.

"What you have seen is permanent production shutdowns in North America as well as temporary shutdowns in Scandinavia. In 12 months, I think the price could rise to about $600 a tonne."

COMMODITIES PRICES

BASE METALS

LONDON METAL EXCHANGE

(Prices from Amalgamated Metal Trading)

■ ALUMINIUM, 99.7 PURITY ($ per tonne)

	Cash	3 mths
Close	1170-71	1193-94
Previous	1140.5-41.5	1165-66
High/low		1197/1172
AM Official	1159-59.5	1181.5-82
Kerb close		1194-95
Open int.	280,042	
Total daily turnover	87,051	

■ ALUMINIUM ALLOY ($ per tonne)

	Cash	3 mths
Close	1058-63	1082-84
Previous	1033-38	1057-60
High/low		1192/1172
AM Official	1053-58	1078-79
Kerb close		1080-81
Open int.	8,502	
Total daily turnover	4,164	

■ LEAD ($ per tonne)

	Cash	3 mths
Close	492-3	495-6
Previous	487-8	491-2
High/low		499/490
AM Official	492-2.5	493.5-4.5
Kerb close		495-6
Open int.	35,684	
Total daily turnover	12,156	

■ NICKEL ($ per tonne)

	Cash	3 mths
Close	5180-90	5255-60
Previous	5110-20	5185-90
High/low		5330/5210
AM Official	5235-40	5305-10
Kerb close		5210-15
Open int.	73,671	
Total daily turnover	19,253	

■ TIN ($ per tonne)

	Cash	3 mths
Close	5320-30	5260-70
Previous	5345-55	5265-70
High/low		5285/5260
AM Official	5320-40	5250-70
Kerb close		5285-90
Open int.	19,404	
Total daily turnover	6,971	

■ ZINC, special high grade ($ per tonne)

	Cash	3 mths
Close	1020-21	1034-35
Previous	1017-18	1030-31
High/low		1035/1023
AM Official	1014-14.5	1028-29
Kerb close		1025-26
Open int.	94,207	
Total daily turnover	14,449	

■ COPPER, grade A ($ per tonne)

	Cash	3 mths
Close	1371-72	1399-400
Previous	1351-2	1379-80
High/low		1402/1380
AM Official	1359.5-60	1384.5-85
Kerb close		1394-95
Open int.	167,445	
Total daily turnover	55,169	

■ LME AM Official £/$ rate: 1.6269

LME Closing £/$ rate: 1.6320

Spot: 1.6303 3 mths: 1.6289 6 mths: 1.6287 9 mths: 1.6291

■ HIGH GRADE COPPER (COMEX)

	Sett price	Day's change	High	Low	Vol	Open int
Mar	61.70	+0.50	62.55	61.65	476	1,127
Apr	61.90	+0.45	62.80	61.90	188	3,774
May	62.30	+0.45	63.20	62.00	5,390	40,300
Jun	62.70	+0.45	63.30	62.70	22	1,906
Jul	63.10	+0.45	64.00	63.10	120	9,843
Aug	63.45	+0.45	64.00	63.80	2	1,520
Total					6,312	78,416

PRECIOUS METALS

■ LONDON BULLION MARKET

(Prices supplied by N M Rothschild)

Gold(Troy oz)	$ price	£ equiv	SFr equiv
Close	284.00-284.50		
Opening	283.70-284.00		
Morning fix	283.90	174.62	256.58
Afternoon fix	284.70	174.91	261.82
Day's High	285.00-285.30		
Day's Low	283.50-283.80		
Previous close	282.50-283.00		

Loco Ldn Mean Gold Lending Rates (Vs US$)

1 month	4.29	6 months	4.07
2 months	4.24	12 months	3.73
3 months	4.19		

Silver Fix	p/troy oz.	US cts equiv.
Spot	310.21	504.25

Silver Lending Rates

1 month	1.00	6 months	0.50
2 months	1.00	12 months	0.25
3 months	1.00		

Gold Coins	$ price	£ equiv.
Krugerrand	285-289	175-177
New Sovereign	66-70	41-43

Precious Metals continued

■ GOLD COMEX (100 Troy oz.; $/troy oz.)

	Sett price	Day's change	High	Low	Vol	Open int
Mar	283.5	+0.3	-	-	6	3
Apr	284.1	+0.2	285.7	283.8	100.1k	68,669
Jun	286.1	+0.2	287.6	285.9	19,255	33,986
Aug	288.1	+0.2	289.5	288.5	2,120	8,810
Oct	290.0	+0.2	290.9	290.9	17	2,933
Dec	291.9	+0.2	293.5	291.5	301	13,399
Total					122,169	165,270

■ PLATINUM NYMEX (50 Troy oz.; $/troy oz.)

	Sett price	Day's change	High	Low	Vol	Open int
Apr	368.8	+2.7	370.4	365.0	1,519	11,380
Jul	369.3	+2.4	370.5	367.0	716	3,868
Oct	369.8	+2.4	371.0	371.0	23	1,132
Total					2,744	16,185

■ PALLADIUM NYMEX (100 Troy oz.; $/troy oz.)

	Sett price	Day's change	High	Low	Vol	Open int
Mar	349.75	-2.25	-	-	13	112
Jun	347.75	-2.25	352.00	347.00	65	2,310
Sep	341.75	-2.25	-	-	50	207
Total					78	2,770

■ SILVER COMEX (5,000 Troy oz.; Cents/troy oz.)

	Sett price	Day's change	High	Low	Vol	Open int
Mar	505.2	-0.6	507.0	500.5	330	884
May	504.0	-0.3	507.0	498.5	32,588	43,589
Jul	506.4	-0.3	509.5	501.0	3,355	16,129
Sep	508.2	+0.1	510.0	505.0	203	4,321
Dec	509.3	+0.1	511.0	506.0	570	8,753
Jan	508.8	-0.1	513.0	513.0	3	14
Total					37,367	80,622

ENERGY

■ CRUDE OIL NYMEX (1,000 barrels, $/barrel)

	Latest price	Day's change	High	Low	Vol	Open int
Apr	15.02	+0.56	15.05	14.40	42,774	71,003
May	15.15	+0.61	15.15	14.50	39,543	128.4k
Jun	15.00	+0.53	15.00	14.45	13,178	80,303
Jul	14.88	+0.44	14.88	14.43	5,026	36,470
Aug	14.75	+0.33	14.75	14.54	2,069	22,796
Sep	14.73	+0.32	14.75	14.52	2,119	19,193
Total					114,071	591,536

■ CRUDE OIL IPE ($/barrel)

	6pm price	Day's change	High	Low	Vol	Open int
May	13.23	+0.55	13.33	12.80	29,443	89,691
Jun	13.22	+0.50	13.29	12.88	15,323	52,184
Jul	13.17	+0.42	13.23	12.84	6,206	18,103
Aug	13.12	+0.33	13.18	12.89	1,877	8,179
Sep	13.17	+0.34	13.22	12.91	1,630	12,037
Total					n/a	n/a

■ HEATING OIL NYMEX (42,000 US galls.; c/US galls.)

	Latest price	Day's change	High	Low	Vol	Open int
Apr	39.35	+1.58	39.35	37.61	14,495	33,003
May	39.40	+1.54	39.40	37.85	7,219	26,273
Jun	39.50	+1.34	39.50	38.65	3,357	20,253
Jul	39.80	+0.99	39.70	39.10	2,285	14,943
Aug	40.20	+0.84	40.20	39.65	1,841	12,916
Sep	41.10	+1.09	41.10	40.70	394	7,408
Total					32,483	183,842

■ GAS OIL IPE ($/tonne)

	Sett price	Day's change	High	Low	Vol	Open int
Apr	117.25	+5.00	117.50	113.00	9,897	32,920
May	117.00	+4.75	117.50	113.50	5,831	27,239
Jun	117.50	+4.00	118.00	115.00	4,264	17,105
Jul	118.50	+3.50	119.00	117.00	1,582	8,346
Aug	120.50	+3.50	120.50	119.00	423	6,221
Sep	122.50	+3.50	122.75	121.00	119	6,168
Total					17,074	141,541

■ NATURAL GAS IPE (1,000 therms; pence per therm)

	Sett price	Day's change	High	Low	Vol	Open int
Apr	9.300	-0.050	9.320	9.300	125	3,835
May	9.230	-0.020	9.230	9.230	25	2,265
Total					438	23,388

■ NATURAL GAS NYMEX (10,000 mmBtu; $/mmBtu.)

	Latest price	Day's change	High	Low	Vol	Open int
Apr	1.750	+0.033	1.755	1.720	24,443	48,070
May	1.780	+0.032	1.790	1.760	14,018	28,405
Jun	1.810	+0.027	1.815	1.795	2,684	20,526
Jul	1.840	+0.027	1.845	1.830	1,811	17,112
Aug	1.870	+0.027	1.875	1.855	1,597	14,836
Sep	1.895	+0.022	1.900	1.885	944	15,209
Total					54,956	284,703

■ UNLEADED GASOLINE

NYMEX (42,000 US galls.; c/US galls.)

	Latest price	Day's change	High	Low	Vol	Open int
Apr	46.60	+1.93	46.60	44.60	13,236	30,269
May	47.20	+1.74	47.20	45.40	9,342	25,049
Jun	47.50	+1.48	47.50	45.95	3,141	20,373
Jul	47.65	+1.38	47.65	46.90	1,452	18,561
Aug	47.40	+1.23	47.40	46.80	244	4,202
Sep	46.40	+0.58	46.80	46.40	542	3,746
Total					28,086	109,257

GRAINS AND OIL SEEDS

■ WHEAT LIFFE (100 tonnes; £ per tonne)

	Sett price	Day's change	High	Low	Vol	Open int
Mar	73.50	-0.25	73.25	73.25	20	33
May	75.35	-0.15	75.55	74.75	205	3,109
Jul	77.20	-0.10	77.35	76.50	93	1,754
Sep	75.50	-0.50	-	-	-	164
Nov	77.50	-0.50	77.75	77.25	97	2,985
Jan	79.50	-0.50	-	-	-	532
Total					415	8,644

■ WHEAT CBT (5,000bu min; cents/60lb bushel)

	Sett price	Day's change	High	Low	Vol	Open int
Mar	271.50	+2.50	273.50	270.00	118	291
May	277.75	+1.25	282.00	276.25	5,305	43,564
Jul	288.00	+1.50	292.00	286.75	9,225	53,847
Sep	297.50	+1.00	301.50	297.00	257	5,740
Dec	312.00	+1.25	319.00	310.50	453	8,986
Mar	320.00	+2.00	-	-	147	2,609
Total					15,512	115,119

■ MAIZE CBT (5,000 bu min; cents/56lb bushel)

	Sett price	Day's change	High	Low	Vol	Open int
Mar	220.00	+2.75	221.00	217.25	1,771	3,003
May	225.75	+2.00	226.75	223.00	24,873	129,131
Jul	231.00	+1.75	232.25	228.75	5,780	104,779
Sep	237.75	+2.25	238.75	235.50	943	24,275
Dec	246.00	+1.50	247.50	243.50	4,405	70,418
Mar	253.25	+1.25	254.50	251.75	349	9,710
Total					38,333	348,510

■ BARLEY LIFFE (100 tonnes; £ per tonne)

	Sett price	Day's change	High	Low	Vol	Open int
Mar	73.00	-	-	-	-	13
May	74.00	-	-	-	-	163
Sep	74.25	-	-	-	-	35
Nov	76.50	-	76.50	76.50	20	325
Jan	78.50	-	-	-	-	20
Total					20	556

■ SOYABEANS CBT (5,000bu min; cents/60lb bushel)

	Sett price	Day's change	High	Low	Vol	Open int
Mar	476.25	-1.00	488.00	475.50	1,420	1,556
May	481.25	-1.50	494.00	480.50	42,171	64,388
Jul	488.50	-1.00	500.50	486.00	7,552	45,539
Aug	491.00	-1.00	503.50	491.00	716	15,265
Sep	491.50	-1.50	504.50	491.00	230	6,072
Nov	500.75	+0.75	511.00	498.50	5,847	28,647
Total					58,164	164,415

■ SOYABEAN OIL CBT (60,000lbs; cents/lb)

	Sett price	Day's change	High	Low	Vol	Open int
Mar	18.90	+0.25	19.20	18.63	684	969
May	19.07	+0.19	19.55	18.85	11,300	49,735
Jul	19.35	+0.21	19.80	19.13	3,835	31,589
Aug	19.50	+0.22	19.90	19.43	307	8,893
Sep	19.65	+0.20	20.10	19.55	234	8,295
Oct	19.80	+0.20	20.20	19.72	76	4,799
Total					16,767	137,553

■ SOYABEAN MEAL CBT (100 tons; $/ton)

	Sett price	Day's change	High	Low	Vol	Open int
Mar	129.7	-1.4	133.5	129.3	1,192	1,972
May	131.4	-1.5	135.5	130.8	10,261	43,850
Jul	133.1	-0.9	136.5	132.6	3,080	36,239
Aug	134.3	-1.2	138.0	134.1	902	11,731
Sep	135.8	-1.2	139.5	135.8	653	9,327
Oct	137.0	-0.8	140.0	136.8	939	4,781
Total					18,293	122,859

■ POTATOES LIFFE (20 tonnes; £ per tonne)

	Sett price	Day's change	High	Low	Vol	Open int
Apr	305.0	+7.0	305.0	300.0	108	1,632
May	335.0	+7.0	330.0	330.0	7	54
Jun	345.0	+7.0	-	-	-	-
Nov	85.0	-	-	-	-	3
Mar	125.0	-	-	-	-	-
Total					117	1,848

■ FREIGHT (BIFFEX) LIFFE ($10/index point)

	Sett price	Day's change	High	Low	Vol	Open int
Mar	980	-25	980	980	7	214
Apr	1000	-20	1000	995	26	897
May	980	-27	985	980	4	90
Jul	895	-15	895	895	5	572
Oct	1000	-30	1000	1000	62	380
Total					104	2,280

	Close	Prev
BFI	999	1001

PULP AND PAPER

■ PULPEX OMLX (US$; 24 air dry tons)

	Sett price	Day's change	High	Low	Vol	Open int
Mar	424.75	+8.75	-	-	-	218
Jun	451.00	+5.50	451.00	442.00	80	531
Total					90	823

FUTURES DATA

All futures data supplied by CMS.

Tea from the Tea Brokers' Association

Mombasa Continuing strong demand. Brighter BP1's were dearer by 5 to 10 cents with mediums firm to 5 cents up. Neater lower mediums were firm to 5 cents dearer but poor leaf types were again neglected. Plainer sorts were lower by about 2 to 6 cents. Brighter liquoring PF1's were irregularly dearer following quality whilst mediums appreciated by about 4 to 9 cents. Lower mediums were on balance firm. Neater plainer sorts tended dearer but others were easier by about 3 cents with poorly made types neglected. Brighter liquoring p.dusts were irregularly dearer following quality.

SOFTS

■ COCOA LIFFE (10 tonnes; £/tonne)

	Sett price	Day's change	High	Low	Vol	Open int
Mar	838	+14	835	831	47	1,442
May	843	+11	847	834	2,221	49,761
Jul	859	+10	863	851	505	15,568
Sep	875	+9	879	867	582	27,744
Dec	898	+9	901	895	31	27,191
Mar	921	+8	926	918	250	18,586
Total					4,616	184,482

■ COCOA CSCE (10 tonnes; $/tonnes)

	Sett price	Day's change	High	Low	Vol	Open int
May	1226	-6	1231	1210	6,500	30,506
Jul	1249	-5	1253	1233	686	13,824
Sep	1271	-6	1273	1264	112	8,280
Dec	1306	-6	1304	1294	679	6,088
Mar	1341	-6	1347	1310	70	6,320
Total					8,199	66,576

■ COCOA (ICCO) (SDR's/tonne)

Mar 16	Price	Prev. day
Daily	958.67	952.45

■ COFFEE LIFFE (5 tonnes; $/tonne)

	Sett price	Day's change	High	Low	Vol	Open int
Mar	1765	+5	1778	1760	98	4,774
May	1555	-5	1584	1554	3,186	30,225
Jul	1553	-5	1561	1533	790	10,515
Sep	1560	-6	1589	1557	762	4,619
Nov	1559	-4	1562	1558	88	1,585
Jan	1556	-5	1555	1555	25	461
Total					4,939	52,293

■ COFFEE 'C' CSCE (37,500lbs; cents/lbs)

	Sett price	Day's change	High	Low	Vol	Open int
Mar	106.90	+1.85	105.50	104.50	80	274
May	107.20	+2.00	107.50	104.20	5,396	23,263
Jul	108.25	+1.80	109.00	105.50	642	8,277
Sep	109.65	+1.85	109.00	107.10	166	5,306
Dec	111.05	+1.70	109.50	109.00	26	2,372
Mar	112.45	+1.80	110.25	110.00	3	733
Total					6,315	40,342

■ COFFEE (ICO) (US cents/pound)

Mar 16		Prev. day
Comp. daily	89.68	88.49
15 day average	90.06	90.26

■ WHITE SUGAR LIFFE (50 tonnes; $/tonne)

	Sett price	Day's change	High	Low	Vol	Open int
May	204.1	-2.9	206.5	203.2	1,900	23,530
Aug	198.0	-2.7	199.9	197.5	1,179	13,938
Oct	194.0	-1.8	195.3	192.9	441	10,872
Dec	195.6	-0.8	195.6	193.9	93	4,042
Mar	199.5	-1.9	200.5	199.5	37	2,943
May	201.0	-1.6	201.0	201.0	5	1,369
Total					3,565	56,809

■ SUGAR '11' CSCE (112,000lbs; cents/lbs)

	Sett price	Day's change	High	Low	Vol	Open int
May	5.79	-0.03	5.89	5.66	6,341	70,179
Jul	5.59	-	5.68	5.46	2,954	44,395
Oct	5.98	+0.03	6.03	5.82	1,533	27,284
Mar	6.55	-	6.60	6.46	794	18,548
May	6.61	-0.01	6.67	6.63	107	3,119
Jul	6.66	-0.01	6.75	6.61	115	2,060
Total					11,905	167,068

■ COTTON NYCE (50,000lbs; cents/lbs)

	Sett price	Day's change	High	Low	Vol	Open int
May	61.42	+0.25	61.75	61.00	2,423	23,833
Jul	61.07	+0.50	61.35	60.60	730	14,364
Oct	60.25	+0.80	60.40	59.50	5	1,797
Dec	59.88	+0.58	60.15	59.30	559	18,429
Mar	60.80	+0.47	60.80	60.65	112	2,279
May	61.35	+0.45	61.55	60.90	1	1,109
Total					3,831	60,048

■ ORANGE JUICE NYCE (15,000lbs; cents/lbs)

	Sett price	Day's change	High	Low	Vol	Open int
May	81.95	-0.30	82.30	81.55	1,209	16,596
Jul	82.80	-	82.80	82.10	342	5,407
Sep	83.30	-0.10	83.50	83.00	71	2,528
Nov	83.90	-0.15	84.00	83.70	183	2,091
Jan	85.35	-0.20	-	-	3	1,179
Mar	87.15	-0.40	87.05	87.05	1	312
Total					1,811	28,254

VOLUME DATA

Open interest and Volume data shown for contracts traded on COMEX, NYMEX, CBT, NYCE, CME, CSCE and IPE Crude Oil are one day in arrears. Volume & Open interest totals are for all traded months.

INDICES

■ Reuters (Base: 18/9/31 = 100)

Mar 17	Mar 16	month ago	year ago
1389.7	1387.7	1421.6	1685.5

■ CRB Futures (Base: 1967 = 100)

Mar 16	Mar 15	month ago	year ago
186.84	186.02	-	-

■ GSCI Spot (Base: 1970 = 100)

Mar 16	Mar 15	month ago	year ago
142.42	142.00	130.00	158.50

LME WAREHOUSE STOCKS (tonnes)

Aluminium	+50	to	814,375
Aluminium alloy	-1,940	to	80,780
Copper	-1,800	to	696,925
Lead	-175	to	105,025
Nickel	-816	to	58,062
Zinc	-700	to	308,100
Tin	+200	to	8,120

MEAT AND LIVESTOCK

■ LIVE CATTLE CME (40,000lbs; cents/lbs)

	Sett Price	Day's change	High	Low	Vol	Open int
Apr	68.875	+0.125	67.300	66.675	8,421	44,274
Jun	64.300	-0.150	64.800	64.250	4,436	39,341
Aug	62.575	-	62.825	62.425	1,138	16,322
Oct	64.350	-0.325	64.750	64.300	843	10,064
Dec	66.275	-0.150	66.550	66.250	302	4,301
Feb	67.625	-0.075	67.700	67.500	110	1,353
Total					15,072	115,959

■ LEAN HOGS CME (40,000lbs; cents/lbs)

	Sett Price	Day's change	High	Low	Vol	Open int
Apr	40.975	+0.050	41.800	40.700	3,771	11,992
Jun	53.025	+0.500	53.800	52.450	3,210	14,302
Jul	54.550	+0.475	54.900	53.850	989	4,863
Aug	55.050	+0.400	55.350	54.500	426	4,351
Oct	53.350	+0.375	53.700	52.950	413	5,076
Dec	54.225	+0.275	54.650	54.000	178	2,904
Total					9,027	44,071

■ PORK BELLIES CME (40,000lbs; cents/lbs)

	Sett Price	Day's change	High	Low	Vol	Open int
Mar	49.475	-0.575	51.100	49.250	30	121
May	50.475	-0.650	52.200	50.300	1,269	2,767
Jul	51.350	-0.900	53.100	51.100	166	1,175
Aug	50.300	-1.125	52.000	50.000	29	375
Total					1,494	4,438

LONDON TRADED OPTIONS

Strike price $ tonne	Calls		Puts	
■ ALUMINIUM (99.7%) LME	May	Aug	May	Aug
1150	52	82	14	24
1200	24	53	37	45
1250	9	32	71	72
■ COPPER (Grade A) LME	May	Aug	May	Aug
1350	61	102	28	46
1400	36	75	52	69
1450	19	54	84	96
■ COFFEE LIFFE	May	Jul	May	Jul
1550	192	52	1	47
1600	142	31	1	76
1650	92	18	1	113
■ COCOA LIFFE	May	Jul	May	Jul
800	51	77	8	18
825	21	47	28	38
850	13	38	45	52
■ BRENT CRUDE IPE	May	Jun	May	Jun
1250	-	-	38	-
1300	71	77	60	-
1350	34	57	-	-

LONDON SPOT MARKETS

■ CRUDE OIL FOB (per barrel)

		+or-
Dubai	$12.94-3.09	+0.515
Brent Blend (dated)	$12.96-3.02	+0.515
Brent Blend (May)	$13.26-3.32	+0.535
W.T.I.	$15.10-5.12x	+0.555

■ OIL PRODUCTS NWE prompt delivery CIF (tonne)

Unleaded Gasoline ‡	$133-136	+4
Gas Oil	$122-123	+5.5
Heavy Fuel Oil	$57-58	+1
Naphtha	$115-117	
Jet fuel	$131-132	+5
Diesel	$123-125	+5

■ NATURAL GAS (Pence/therm)

Bacton (Apr)	9.33-9.40	+0.01

Petroleum Argus. Tel: London (0171) 359 8792

■ OTHER

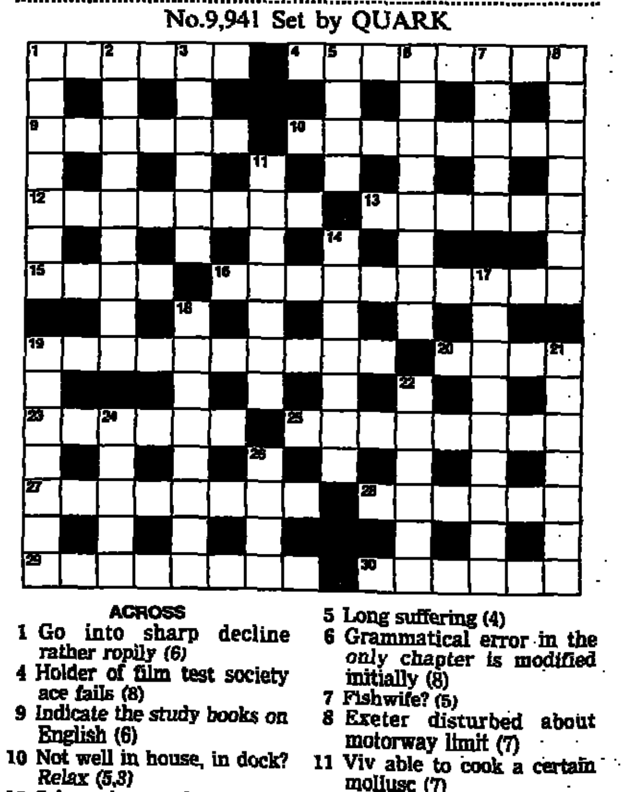
Gold (per troy oz)♣	$284.25	+1.50
Silver (per troy oz)♣	504.25c	-1.25
Platinum (per troy oz.)	$367.75	+3.50
Palladium (per troy oz.)	$346.00	-1.50
Copper	67.0c	
Lead (US prod.)	45.00c	
Tin (Kuala Lumpur)	19.65r	-0.10
Tin (New York)	253.5	-1.0
Cattle (live weight)	91.93p	+1.04*
Sheep (live weight)	90.76p	-3.96*
Pigs (live weight)†	60.15p	-4.54*
Lon. day sugar (raw)	$153.30	-2.20
Lon. day sugar (wte)	$217.60	-1.90
Barley (Eng. feed)	Unq	
Maize (US No3 Yellow)	£109.00	
Wheat (US Dark North)	Unq	
Rubber (Apr)♥	43.00p	-0.25
Rubber (May)♥	43.25p	-0.50
Rubber (KL RSS No1)	238.50m	-2.50
Coconut Oil (Phil)§	710.0	+10.0
Palm Oil (Malay.)§	457.5y	-2.5
Copra (Phil)§	460.0z	+10.0
Soyabeans (US)	144.0y	
Cotton Outlook 'A' index	56.45	
Wooltops (64s Super)	302p	

£ per tonne unless otherwise stated. p pence/kg. c cents/lb. r ringgit/kg. m Malaysian cents/kg. z Mar/Apr. y Mar. x May. ♥London Physical. § CIF Rotterdam. ♣ Bullion market close. * Change on week. †Based on [illegible]. ‡ Unleaded Gasoline replaced Premium on March 15th. [illegible] or pigs sold.

JOTTER PAD

CROSSWORD

No.9,941 Set by QUARK



ACROSS

1 Go into sharp decline rather ropily (6)
4 Holder of film test society ace fails (8)
9 Indicate the study books on English (6)
10 Not well in house, in dock? Relax (5,3)
12 Select rice partly for stirring (8)
13 Time is invariably seen with it (6)
15 The fielder's mistake (4)
16 Authoritarian administration of any tenants being awkward (5,5)
19 A VIP prey we grilled in TV watching scheme (3-3-4)
20 Some try out a holiday in the States (4)
23 Vigorous survey mostly engulfed by bloomer (6)
25 One filer eg involved in ornamental work (8)
27 Bird fanatic to devise a plot (8)
28 Live period of play before interval provides interest (6)
29 Obtained an account kept secret about the day before (8)
30 Also a stylish person (2,4)

DOWN

1 Speech written on an envelope (7)
2 Genuineness resulting from northern city rise (9)
3 Taking lively interest in Old Testament set up as a whole (2,4)
5 Long suffering (4)
6 Grammatical error in the only chapter is modified initially (8)
7 Fishwife? (5)
8 Exeter disturbed about motorway limit (7)
11 Viv able to cook a certain mollusc (7)
14 Improvised one mile after Bury (7)
17 Subsequent anxiety expected at end of treatment? (9)
18 Give the story. It's revealing (4-4)
19 The prize a man introduced: a sort of meal (7)
21 Obliging editor going in for record, being observant (7)
22 Several people under water (6)
24 Check the central heating in the plant (5)
25 One possessing millions provides the high spot (4)

Solution 9,940

C	O	B	B	E	R		S	H	O	V	E	L	
H		E		O				O		I		A	
C	A	N	D	O	U	R		P	R	E	V	E	N	T
	I		E		A		I		U		A		D
G	R	A	V	E	L	I	N	E	S		L	I	S	T
			I		I		C				D		C
T	I	L	T	S		R	U	B	A	I	Y	A	T
	R				E		E		A				P
S	I	D	E	D	R	U	M		S	P	A	R	E
	B		Y				E		R		S		
P	A	C	E		W	U	N	D	E	R	K	I	N	D
	L		W		A		T		L		A		O
T	I	T	A	N	I	C		L	I	O	N	I	S	E
	S		S		V				E		C		E
M	A	H	L	E	R		O	F	F	E	N	D	

For solutions to today's crossword call 0906 843 0060. Calls cost 60p a minute.

FT MANAGED FUNDS SERVICE

● FT Cityline Unit Trust Prices are available over the telephone. Call the FT Cityline Help Desk on (+44 171) 873 4378 for more details.

OFFSHORE AND OVERSEAS

BERMUDA (FSA RECOGNISED)

BERMUDA (REGULATED)(**)

CAYMAN ISLANDS (REGULATED)(**)

GUERNSEY (REGULATED)(**)

GUERNSEY (FSA RECOGNISED)

IRELAND (FSA RECOGNISED)

IRELAND (REGULATED)(**)

ISLE OF MAN (FSA RECOGNISED)

ISLE OF MAN (REGULATED)(**)

JERSEY (FSA RECOGNISED)

Offshore Funds and Insurances

FT MANAGED FUNDS SERVICE

● FT Cityline Unit Trust Prices are available over the telephone. Call the FT Cityline Help Desk on (+44 171) 873 4378 for more details.

Barclays International Funds - Contd.

Northgate Unit Tst. Mngr. (Jersey) Ltd

Royal Bank of Scotland Fund Managers (CI) Ltd

Fidelity Funds - Contd.

Lombard Odier Invest - Contd.

Schroder International Selection Fd - Contd.

Banque Internationale A Luxembourg - Contd.

Julius Baer Group - Contd.

Scudder Global Opportunities Funds - Contd.

JERSEY (REGULATED)(**)

LUXEMBOURG (FSA RECOGNISED)

LUXEMBOURG (REGULATED)(**)

OFFSHORE INSURANCES

FT MANAGED FUNDS SERVICE

Offshore Insurances and Other Funds

● FT Cityline Unit Trust Prices are available over the telephone. Call the FT Cityline Help Desk on (+44 171) 873 4378 for more details.

Selling Price	Buying Price	+ or -	Yield Gross

CMI Insurance Co Ltd

[illegible]

* Formerly Sterling Security
** Formerly Sterling Balanced
*** Formerly Sterling Opportunity

CMI Ins Co Ltd/Clerical Med Life

[illegible]

Old Mutual International - Contd.

[illegible]

Old Mutual International (Ireland) Ltd

50 Dawson Street, Dublin 2, Ireland 003531 602 1555

[illegible]

AXA Investment Managers Paris

[illegible]

OTHER OFFSHORE FUNDS

[illegible]

● MANAGED FUNDS NOTES

[illegible]

LONDON SHARE SERVICE

ALCOHOLIC BEVERAGES

	Notes	Price	+ or −	52 week high	52 week low	Volume '000s	Yld Gr's	P/E
Allied Domecq	†N	498xd	−14½	646	385	2,898	6.5	12.3
Bulmer (HP)		318	+4½	398	279½	–	5.8	14.2
Burn Stewart		11½	–	30½	7	2	–	–
Diageo	♣N	708	+8½	785	476	5,494	2.7	17.4
Glenmorangie A	†	885	–	980	600	–	3.0	16.4
B	†	672½	–	950	672½	–	1.3	38.5
Highland		245½	–	325	225	54	4.8	11.2
5¾pc Cv Sb Bd		97½	–	108½	90½	68	5.9	–
Kirin Y		758¼xd	−21½	914¼	457¼	–	0.8	99.4
Merrydown		35½	–	54½	18½	337	–	ф
Seagram C$		£28⅞	[illegible]	£30⅞	£14⅞	–	0.9	–
South African Brews		541¼	+12¼	583	433	1,989	–	–

BANKS, RETAIL

BREWERIES, PUBS & REST

BUILDING MATS. & MERCHANTS

CHEMICALS

CONSTRUCTION

CONSTRUCTION - Continued

DISTRIBUTORS

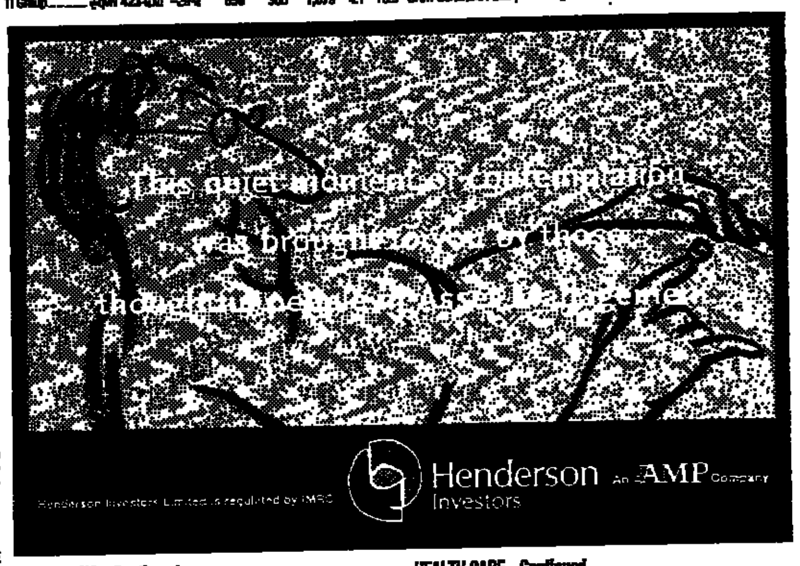
DIVERSIFIED INDUSTRIALS

ELECTRICITY

ELECTRONIC & ELECTRICAL EQPT

ENGINEERING

ENGINEERING - Continued



ENGINEERING - Continued

ENGINEERING, VEHICLES

EXTRACTIVE INDUSTRIES

FOOD PRODUCERS

FOOD PRODUCERS - Continued

GAS DISTRIBUTION

HEALTH CARE

HEALTH CARE - Continued

HOUSEHOLD GOODS & TEXT

INSURANCE

INVESTMENT TRUSTS

INVESTMENT TRUSTS - Continued

INV TRUSTS SPLIT CAPITAL

LONDON SHARE SERVICE

OTHER INVESTMENT TRUSTS

The following investment trusts are not eligible for inclusion in the FTSE Actuaries Share Indices

INVESTMENT COMPANIES

LEISURE & HOTELS

LIFE ASSURANCE

MEDIA

MEDIA - Continued

OIL EXPLORATION & PRODUCTION

OIL, INTEGRATED

OTHER FINANCIAL

PAPER, PACKAGING & PRINTING

PHARMACEUTICALS

PROPERTY

PROPERTY - Continued

PROPERTY - Continued

RETAILERS, FOOD

RETAILERS, GENERAL

SUPPORT SERVICES

SUPPORT SERVICES - Continued

TELECOMMUNICATIONS

TOBACCO

TRANSPORT

TRANSPORT - Continued

WATER

AMERICANS

CANADIANS

SOUTH AFRICANS

TRADED INDEX SECURITIES

AIM

Alternative Investment Market

AIM - Continued

GUIDE TO LONDON SHARE SERVICE

This service is available to companies whose shares are regularly traded in the United Kingdom for a fee of £1570 a year for each security shown, subject to the Editor's discretion.

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FT Cityline

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An international service is available for callers outside the UK, annual subscription £250 stg. Please consult your financial adviser and verify financial pricing information obtained via FT Cityline before making any investment decision.

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For Retail Price Index details call 0906 843 0005

The FT web site

London share prices are available throughout the trading day with a 20 minute delay from our web site, http://www.ft.com, which also has the closing share prices printed on these pages.

LONDON STOCK EXCHANGE

Nervous profit-takers drive Footsie lower again

MARKET REPORT

By Steve Thompson, UK Stock Market Editor

It was another unhappy day for London's equity market, with the FTSE 100 index, riding high at a record only a week ago, losing ground for the fourth consecutive session.

Poor sentiment spread right across the board, with the mid and small caps also suffering at the hands of profit-takers who have become increasingly nervous about the market's underlying support.

The London market was hampered by *Wall Street's* skittish performance overnight, where the Dow Jones Industrial Average's triumphant march through the 10,000 barrier for the first time lasted only minutes, with the Dow sliding back to close 28 points lower.

And Wall Street gave no lead to global markets when it kicked off yesterday, the Dow slipping away and posting a 60-point fall not long after London closed its trading books.

Dealers said investors were keen to lock in profits in the UK market after its strong pre- and post-Budget *performances, which took* the FTSE 100 up to a peak of 6,364.5; the FTSE 250 to a sequence of 16 straight winning performances; and the FTSE SmallCap to a series of strong gains.

"There didn't appear to be any really determined selling but by the same token the buyers just held off. If Wall Street picks up, we'll be fine; if it slides, so will we," said one marketmaker.

The day's domestic economic news was, if anything, mildly positive. The minutes of the March meeting of the Bank of England's monetary policy committee showed *that members voted eight to* one in favour of leaving *rates on hold – Willem Bui*ter voted for a 40 basis point reduction – but it was also revealed that the next move in UK interest rates would probably be down.

Unemployment in the UK in February rose by 4,300, against a neutral forecast, while average earnings came in at plus 4.3 per cent in the year to December, down from a November figure of 4.5 per cent.

Commenting on the data Paul Mortimer-Lee at Paribas said: "Overall a good set of data, showing the labour *market softening. There is* no impediment to further *rate cuts – we expect to see* a 25 basis points cut in April."

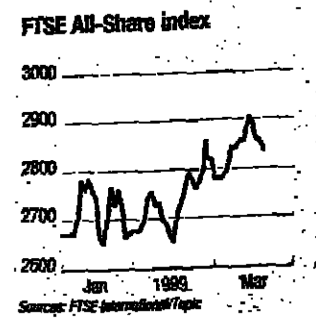
The FTSE 100 index finished 61.3 down at 6,140.6, having dropped 92.2 to 6,109.7 at the day's worst level, in mid-morning.

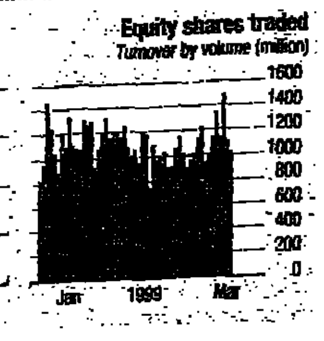
And the FTSE 250 closed 34.4 off at 5,485.3, only just short of its lowest of the day, 5,480.9, reached in mid-morning. The FTSE SmallCap made early progress, edging ahead to 2,377.2, but later drifted away to close a net 0.9 off at 2,379.9.

Turnover in equities reached 1.1bn shares by the 6pm count. FTSE 100 stocks accounted for just over half the overall total.

Around the market sectors there were some strong per*formers, with the internet* joint venture promoting strong support for *Daily Mail* and General Trust and Dixons. The heavily-weighted oil stocks performed well.

But some of the stocks reporting results drew a disappointing response despite producing profits that were up to scratch. Smiths Industries took a pasting, sliding 10 per cent.





Indices and ratios

FTSE 100	6140.6	–61.3	FT 30	3724.5	–53.5
FTSE 250	5485.3	–34.4	FTSE Non-Fins p/e	24.42	24.58
FTSE 350	2929.9	–27.6	FTSE 100 Fut Mar	6133.0	–45.5
FTSE All-Share	2836.90	–25.41	10 yr Gilt yield	4.61	4.67
FTSE All-Share yield	2.68	2.66	Long gilt/equity yld ratio	1.74	1.77

Best performing sectors

1 Oil Integrated ......+3.0
2 Resources ......+2.6
3 Oil Exploration & Prod ......+1.9
4 Diversified Industrials ......+0.9
5 Chemicals ......+0.5

Worst performing sectors

1 Telecommunications ......–3.0
2 Life Assurance ......–2.2
3 Insurance ......–2.1
4 Distributors ......–2.1
5 Media ......–2.0

Zeneca outshines its rivals

COMPANIES REPORT

By Peter John, Martin Brice and Simon Bernholt

Zeneca performed strongly, while rival pharmaceutical groups *fell as dealers* responded to the weighting pressure ahead of the merger with Astra of Sweden.

Zeneca *expects to have* unconditional acceptances *for the merger by the end of* the month and hopes the *deal will go live on April 6.*

Investors will then need to *buy heavily just to establish* a weighting that reflects its *new market capitalisation.*

Zeneca said: "We are talking about several tens of millions of shares." The final figure might be as high as 100m.

Active funds can choose to remain underweight but are unlikely to do so. More significantly, about a fifth of the UK institutions are tracker funds that must get an appropriate holding but cannot begin to adjust their portfolios until just before the merger is complete. Zeneca ended up 64 at £25.20 while Glaxo Wellcome fell 29 to £19.47 and **SmithKline Beecham** 6½ to 823½p.

ICI climbed 23½ to 572p, the best percentage gain in the Footsie, as one US buyer set the tone for the day with a big overnight order.

A block of 3.4m shares was taken out of the market and the appetite for stock sharpened shortly afterwards as Brendan O'Neill, ICI's chief executive designate, outlined the group policy at a chemicals conference hosted by Bank Julius Baer.

The subsequent squeeze was enough to revive the shares at a time when dealers are *hunting* for cyclical stocks in the belief that an economic soft landing is more likely than recession.

There were also vague rumours that ICI, which has *debt of more than £4bn,* is poised to make a disposal. In February, ICI said it was still considering the sale or flotation of its titanium dioxide business. But analysts said there was no reason to believe a sale was imminent.

The first positive comment in five years on food retailer **J Sainsbury** from long-time bear on the stock Dresdner Kleinwort Benson prompted the shares to advance amid heavy volume.

The stock touched 580p late last year but has fallen since then *to close last night* at 355¼p, up 6¼ on the day *as 10m changed hands.*

Moving from "reduce" to "add", *analyst Simon Dunn* said: "The scope for *enhancement of shareholder* value is significant enough *to prompt* a change of stance."

***BP Amoco** and **Shell** Transport* rose on the back *of a firmer oil price and data* showing a bigger-than-expected drop in American oil inventories.

BP Amoco climbed 31½ to £10.01 while Shell rose 9½ to 397p. Brent crude nudged above $13.00 per barrel for the first time in almost six months.

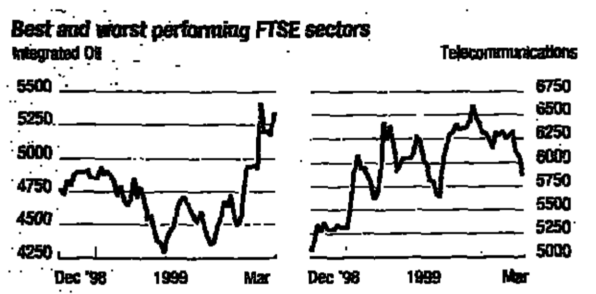
American Petroleum Institute data showed a high drop in inventory of refined products and were taken to be bullish overall despite a rise in crude stocks. Dealers said hopes were growing that crude prices had finally bottomed out.

Sentiment was bolstered further when the Saudi state oil company confirmed the country had agreed to reduce supply by 585,000 barrels a day under the Hague pact forged last week.

BT Alex Brown, the leading UK bull in the sector, has just published a two-volume overview of the sector in which it reinforces its underlying oil price forecast *of $16 a barrel* by the end of the year and $18 in the *medium term.*

Exploration and produc*tion stocks were also slightly* firmer. **Enterprise** lifted 11¼ *to 312¾p* and **Lasmo** 4 to 134½p. **British-Borneo** was helped by news of a gas and oil find in the North Sea but investors were unwilling to deal ahead of full-year figures from the group today and the shares eased a penny to 137½p.

Internet fever swept through **Daily Mail & General Trust**, shunting the shares up 127 to £32.30. A subsidiary of the newspaper group announced an "extensive" programming agreement with **Dixons**, the retailer that offers free access to the Internet. Dixons was up 37 at £12.90½.



Smiths slips

Smiths Industries was off 10 per cent or 106½ at 953p after results 4 per cent below consensus forecasts.

Analysts said the stock was ripe for profit-taking because it has risen about 25 per cent in the past six weeks. Sentiment had been damped by a slowing in the industrial and medical sides, while much of the growth came from the aerospace cycle which was widely seen as set to enter a downturn.

Traders said the figures prompted a slight easing in profit forecasts, by about £3m to £235m for this year and £6m to £252m for next.

But investor nervousness on cyclical stocks was demonstrated by the strong share price reaction to the downgrades.

Football shares were down across the board on press reports that the Monopolies and Mergers Commission could have blocked **BSkyB**, down 7½ to 542½p on a vol*ume of 5m, from buying* **Manchester United**, down 21 *to 219p.*

One analyst said the article had "put the cat among the pigeons". How*ever, Vinay Bedi of Wise* Speke said: "In spite of these reports, we struggle to see why the bid should not be given the go-ahead, although we accept the MMC might have asked for certain provisos."

Analysts said falls in **Leeds Sporting**, down 2¼ to 21½p, **Aston Villa**, down 17½ to 540p, **Newcastle United**, down 5 to 90p, and **Chelsea Village**, down 5½ to 79½p, did not reflect their individual circumstances.

Devro suffered the worst performance in the market as the sausage-skin maker issued its fourth profit warning in the past year alongside a set of poor results. The stock was off almost 22 per cent, or 40 at 143½p. The stock has fallen from a peak of 545p last year.

The figures were not out-of-line with expectations that had been damped by the last profits warning. But the damage was done by Devro's warning that volumes and pricing were still under pressure because global slowdown had led to a glut in sausage casings.

The 5 per cent fall by **Northern Foods** was attributed to concerns that it might consider entering the fray for **Terranova**, which stayed well above the 125p offered by Unigate.

While Terranova gained 2½ at 137p, Unigate was up 6¼ at 417p and Northern fell 6 to 110p.

FT 30 INDEX

	Mar 17	Mar 16	Mar 15	Mar 12	Mar 11	Yr ago	*High	*Low
FT 30	3724.5	3778	3763.4	3832.8	3841.5	3763.2	4004.9	2790.6
Ord. div. yield	2.78	2.73	2.73	2.70	2.68	2.92	4.22	2.72
P/E ratio net	22.86	23.21	23.21	23.49	23.61	24.3	25.41	15.80
P/E ratio nil	22.80	23.15	23.15	23.42	23.54	24.08	25.19	15.71

FT 30 since compilation: high 4004.9 7/15/98; low 49.4 6/26/40. Base Date: 1/7/35.

FT 30 hourly changes

9	10	11	12	13	14	15	16	High	Low
3778.0	3737.3	3717.1	3727.2	3732.1	3742.1	3739.8	3734.8	3778.0	3713.5

STOCK MARKET TRADING DATA

	Mar 17	Mar 16	Mar 15	Mar 12	Mar 11	Yr ago
SEAQ bargains	86,559	96,777	92,595	93,301	97,294	n/a
Equity turnover (£m)†	-	-	n/a	5058.1	5814.5	n/a
Equity bargains†	-	-	n/a	79,038	78,015	n/a
Shares traded (m)†	-	-	n/a	1053.4	1211.6	n/a
Total market bargains‡	-	-	n/a	92,702	97,163	-
Total turnover (£m)‡	-	-	n/a	6337.6	7632.9	-
Total shrs traded (m)‡	*1030.4	-	n/a	1309.6	1563.7	-
Tradepoint turnover (£m)	30.9	29.4	25.7	43.8	40.4	24.2
Tradepoint shrs traded(m)	10.6	10.9	13.8	13.6	17.4	5.7

†Excluding intra-market and overseas turnover but including Crest turnover. *UK only total at 6pm. ‡ UK plus intra-market turnover.

■ London market data

Rises and falls*		52 Week highs and lows		LIFFE Equity options	
Total Rises	632	Total Highs	58	Total contracts	52,301
Total Falls	873	Total Lows	31	Calls	24,205
Same	1,347			Puts	28,096

Mar 17 *Data based on Equity shares listed on the London Share Service.

FUTURES AND OPTIONS

■ FTSE 100 INDEX FUTURES (LIFFE) £10 per full index point

	Open	Sett price	Change	High	Low	Est. vol	Open int.
Mar	6177.0	6135.0	-63.0	6184.0	6105.0	62736	92227
Jun	6225.0	6176.0	-64.0	6228.0	6150.0	55124	124440
Sep	6215.0	6225.0	-64.0	6215.0	6215.0	750	3898

■ FTSE 250 INDEX FUTURES (LIFFE) £10 per full index point

	Open	Sett price	Change	High	Low	Est. vol	Open int.
Mar	5500.0	5468.0	-34.0	5500.0	5485.0	47	2299
Jun	5615.0	5468.0	-32.0	5615.0	5610.0	7	7531

■ FTSE 100 INDEX OPTION (LIFFE) (*6140) £10 per full index point

[illegible]

■ EURO STYLE FTSE 100 INDEX OPTION (LIFFE) £10 per full index point

[illegible]

LONDON RECENT ISSUES: EQUITIES

Issue price p	Amt. paid up	Mkt. cap (£m.)	1998/99 High	Low	Stock	Close price p	+/-	Net div.	Div. cov.	Grs yld	P/E net
[illegible]											
§	F.P.	28.7	103½	98½	Gartmore High In	103½	+1	67.2	-	70	-
	F.P.	10.7	106½	101½	Do Cnv Pref	106½	+¼	-	-	-	-
§	F.P.	-	100½	95½	Govett Enhanced	95½		-	-	-	-
-	F.P.	-	105½	100	Do Zero Div Pref	101½		-	-	-	-
§	F.P.	47.7	100½	94½	Jupiter Enhanced	100		-	-	-	-
§	F.P.	47.2	118	103½	Do Zero Div Prf	106½	+½	-	-	-	-
	F.P.	-	360	250	Lumbar Warrants	250		-	-	-	-
-	F.P.	5.90	110½	107½	†NBA Quantum	110		W-	-	-	11.2
•	F.P.	10.7	156	55½	†Sports Internet	121½	–11	-	-	-	-
	F.P.	-	142½	124½	Synstar	133½	–3½	-	-	-	32.9

† Alternative Investment Market. § Placing price. * Introduction. For a full explanation of all other symbols please refer to The London Share Service notes.

RIGHTS OFFERS

Issue price p	Amount paid up	Latest Renun. date	1998/99 High	Low	Stock	Closing price p	+or-
320	Nil	6/4	16pm	15pm	First Tech Cv Pf	16pm	+1
15	Nil	25/3	12pm	2pm	Oxford Biomedica	8½pm	–½
406	Nil	7/4	96½pm	84pm	Waste Recycling	96½pm	+7½

pm premium.

FTSE GOLD MINES INDEX

	Mar 16	% chg on day	Mar 15	Year ago	Gross div yield %	Total return	52 week High	Low
Gold Mines Index (29)	907.39	–1.98	925.70	1060.00	2.02	914.83	1351.57	701.58
■ Regional Indices								
Africa (9)	1006.32	–4.41	1052.76	1003.22	4.07	1023.60	1488.04	765.63
Australasia (9)	1117.49	–5.18	1178.52	1292.83	2.78	1131.30	1800.53	815.93
Americas (11)	841.82	+0.06	841.35	1082.48	0.86	844.84	1317.41	647.89

 Figures in brackets show number of companies. Basis US Dollars. Base Value: 1000.00 31/12/92. † Partial. latest prices were unavailable for this edition.

FTSE Actuaries Share Indices — The UK Series

Produced in conjunction with the Faculty and Institute of Actuaries

	£ Stg Mar 17	Day's chge%	Euro index	£ Stg Mar 16	Year ago	Gross yield%	Net yield%	Net cover	P/E ratio	Xd adj. ytd	Total Return
FTSE 100	6140.6	–1.0	7080.8	6201.9	5903.6	2.58	2.32	1.93	25.01	40.46	2736.69
FTSE 250	5485.3	–0.6	6325.2	5519.7	5424.9	2.98	2.66	2.10	19.98	27.13	2398.58
FTSE 250 ex Inv Tr	5531.0	–0.6	6377.8	5567.0	5464.8	3.09	2.77	2.18	18.59	27.43	2429.30
FTSE 350	2929.9	–0.9	3378.6	2957.5	2831.4	2.65	2.37	1.96	24.05	18.54	2868.52
FTSE 350 ex Inv Tr	2936.4	–0.9	3386.0	2964.3	2836.0	2.66	2.38	1.98	23.81	18.71	1371.89
FTSE 350 Higher Yield	2813.9	–0.5	3244.8	2829.1	2805.3	3.54	3.14	1.83	19.31	21.74	2203.96
FTSE 350 Lower Yield	3046.1	–1.3	3512.5	3087.4	2874.8	1.72	1.57	2.28	32.31	14.84	2241.23
FTSE SmallCap	2374.85	....	2738.48	2375.78	2575.61	3.37	2.87	2.02	18.35	10.96	2107.71
FTSE SmallCap ex Inv Tr	2343.09	....	2701.86	2343.43	2568.75	3.56	3.05	2.14	16.38	10.26	2102.66
FTSE All-Share	2836.90	–0.9	3271.28	2862.31	2758.99	2.68	2.40	1.97	23.69	17.72	2622.27
FTSE All-Share ex Inv Tr	2846.92	–0.9	3282.82	2872.86	2766.12	2.70	2.41	1.99	23.36	17.91	1354.07
FTSE Fledgling	1294.58	+0.3	1492.80	1290.15	1395.90	3.69	3.07	1.35	25.01	5.05	1463.75
FTSE Fledgling ex Inv Tr	1305.81	+0.4	1505.75	1300.39	1417.15	4.21	3.50	1.40	21.24	5.25	1484.88
FTSE All-Small	1345.33	....	1551.32	1344.79	1457.37	3.43	2.91	1.87	19.43	6.01	1523.99
FTSE All-Small ex Inv Tr	1352.92	+0.1	1560.07	1351.96	1480.07	3.69	3.14	1.97	17.16	5.83	1543.97
FTSE AIM	849.4	–1.0	979.4	858.3	1047.0	1.31	1.09	30.00†	0.12	1.21	791.00

■ *FTSE* Actuaries Industry Sectors

	£ Stg Mar 17	Day's chge%	Euro Index	£ Stg Mar 16	Year ago	Gross yield%	Net yield%	Net cover	P/E ratio	Xd adj. ytd	Total Return
10 RESOURCES(18)	4582.70	+2.6	5284.39	4468.16	4451.32	3.04	2.74	1.12	36.77	26.98	2152.72
12 Extractive Industries(6)	3266.16	–1.7	3766.27	3324.09	3210.21	3.90	3.64	2.01	15.92	69.75	1077.57
15 Oil, Integrated(3)	5330.49	+3.0	6146.68	5173.00	4901.16	2.99	2.68	1.03	40.59	23.20	2570.41
16 Oil Exploration & Prod(9)	1613.85	+1.9	1860.96	1584.17	3194.95	1.99	1.86	‡	‡	7.97	1015.98
20 GEN INDUSTRIALS(188)	2002.59	–0.7	2309.21	2017.30	2218.09	3.45	3.14	2.39	15.17	15.49	1208.37
21 Construction(37)	1493.10	–0.2	1721.72	1496.30	1637.18	3.30	2.86	3.33	11.39	6.10	1362.55
22 Building Matls & Merchs(23)	1798.65	–0.8	2074.29	1813.60	1872.60	4.06	3.71	2.33	13.21	0.60	1003.78
23 Chemicals(20)	2060.27	+0.5	2375.73	2049.83	2861.69	4.65	4.45	1.58	16.97	39.78	1093.70
24 Diversified Industrials(4)	1035.08	+0.9	1193.57	1025.81	1490.68	6.33	5.58	1.08	18.33	5.26	660.25
25 Electronic & Elect Equip(25)	3130.89	....	3610.28	3131.14	2440.53	2.37	2.06	2.04	25.87	16.58	1765.22
26 Engineering(53)	2433.56	–1.7	2808.18	2476.14	2983.86	3.43	3.12	2.43	15.01	19.03	1614.70
27 Engineering, Vehicles(9)	4492.73	–0.1	5180.64	4498.29	4059.05	2.03	1.87	4.45	13.84	34.12	2522.39
28 Paper, Pckg & Printing(17)	1745.30	–1.5	2012.54	1772.06	2279.20	6.12	5.41	2.22	9.19	25.92	818.60
30 CONSUMER GOODS(81)	5851.97	–0.6	6748.00	5888.42	5682.97	2.31	2.21	1.92	28.15	31.27	2352.80
32 Alcoholic Beverages(5)	3802.80	+0.5	4385.07	3783.68	3848.34	3.29	3.27	2.33	16.29	0.34	1524.61
33 Food Producers(26)	3330.17	–1.4	3840.07	3376.27	3868.37	2.72	2.51	2.10	21.84	16.92	1640.35
34 Household Goods & Textls(13)	2064.42	–1.2	2380.51	2088.73	3449.93	4.92	4.64	1.68	15.10	6.06	888.89
36 Health Care(14)	2526.12	–0.4	2912.91	2537.53	2345.49	2.12	1.89	1.97	30.02	2.36	1633.03
37 Pharmaceuticals(20)	10566.68	–0.6	12184.61	10627.15	9528.83	1.67	1.61	1.81	41.36	71.49	3832.83
38 Tobacco(3)	6537.12	–1.3	7538.05	6624.54	5245.57	4.89	4.59	1.46	17.50	43.60	1874.80
40 SERVICES(281)	3810.39	–1.6	4393.82	3873.37	3338.74	2.21	1.88	2.13	26.44	10.83	2125.92
41 Distributors(25)	1939.40	–2.1	2236.36	1980.33	2743.58	4.51	3.99	2.06	13.44	8.25	781.97
42 Leisure & Hotels(31)	3893.20	–1.3	4489.31	3943.42	3812.29	2.35	2.12	3.04	18.30	33.25	2245.75
43 Media(45)	5181.23	–2.0	5974.56	5288.31	4458.49	1.88	1.74	2.28	29.09	28.27	1990.99
44 Retailers, Food(13)	2380.05	+0.5	2744.47	2368.99	2973.36	3.83	3.08	2.16	15.10	4.57	1644.20
45 Retailers, General(41)	2355.18	–0.6	2715.79	2369.42	2380.30	3.15	2.58	2.09	18.93	5.99	1461.24
46 Telecommunications(7)	5879.65	–3.0	6779.97	6063.23	3692.76	1.53	1.25	1.64	49.83	4.51	2900.45
47 Breweries, Pubs & Rest.(22)	3816.32	–0.9	4400.66	3852.67	4192.35	3.30	2.68	2.20	17.23	16.56	1989.56
48 Support Services(68)	5166.64	–0.3	5957.74	5181.41	4597.83	1.19	1.08	2.91	36.25	3.81	3426.95
49 Transport(29)	3538.93	–1.2	4080.80	3583.50	3448.41	2.93	2.52	1.98	21.50	15.32	1604.74
60 UTILITIES(20)	3670.54	–1.1	4232.56	3710.64	3777.36	4.23	3.67	1.84	16.06	11.51	1791.04
62 Electricity(7)	4036.14	–1.3	4654.14	4089.03	4262.62	4.78	3.95	1.31	20.04	9.64	2416.40
64 Gas Distribution(2)	3108.36	–1.2	3584.29	3145.15	2782.82	2.03	1.80	2.71	22.76	0.00	[illegible]
68 Water(11)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
69 NON-FINANCIALS(588)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
70 FINANCIALS(108)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
71 Banks, Retail(12)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
73 Insurance(21)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
74 Life Assurance(6)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
77 Other Financial(24)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
79 Property(48)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
80 INVESTMENT TRUSTS(117)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
89 FTSE All-Share(826)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
105 FTSE All-Share ex Inv Tr(709)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Information Technology	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

■ Hourly movements

	9.00	10.00	11.00	12.00	13.00	14.00	15.00	16.10	High/day	Low/day
FTSE 100	6184.5	6147.0	6118.4	6141.0	6148.8	6175.0	6175.6	6140.3	6194.5	6109.7
FTSE 250	5513.8	5502.3	[illegible]	5485.1	5486.2	5485.4	5487.3	5485.8	5513.8	5480.9
FTSE 350	2954.0	2934.9	2921.7	2930.1	2933.3	2943.6	2944.2	2929.9	2954.0	2918.5
FTSE SmallCap	2377.22	2374.92	2372.62	2372.12	2373.83	2374.51	2374.61	[illegible]	2377.22	2372.12
FTSE All-Share	2859.18	2840.60	2829.18	2839.91	2843.56	2848.88	2848.59	2836.64	2859.18	2826.26

[illegible]

 † Sector P/E ratios greater than 80 are not shown. ‡ Values are negative.

FTSE INTERNATIONAL

TRADING VOLUME

■ Major Stocks yesterday.

	Vol 000's	Closing price	Day's change
[illegible]			

Highs & Lows shown on a 52 week basis

WORLD STOCK MARKETS

EUROPE (EMU) Prices in €

EUROPE (NON-EMU)

PACIFIC

AFRICA

AMERICAS

FT/S&P ACTUARIES WORLD INDICES

The FT/S&P Actuaries World Indices are owned by FTSE International Limited, Goldman, Sachs & Co. and Standard & Poor's. The Indices are compiled by FTSE International and Standard & Poor's in conjunction with the Faculty of Actuaries and the Institute of Actuaries.

NATIONAL AND REGIONAL MARKETS Figures in parentheses show number of lines of stock	TUESDAY MARCH 16 1999 US Dollar Index	Day's Change %	Pound Sterling Index	Yen Index	Euro Index	Local Currency Index	Local % chg on day	Gross Div. Yield	MONDAY MARCH 15 1999 US Dollar Index	Pound Sterling Index	Yen Index	Euro Index	Local Currency Index	DOLLAR INDEX 52 week High	52 week Low	Year ago (approx)
Australia (75)	213.99	-1.2	195.31	159.44	225.89	227.79	0.0	3.31	216.58	197.99	161.64	227.88	227.78	219.96	163.86	212.73
Austria (21)	187.25	0.7	170.90	139.51	174.41	174.41	1.0	1.92	185.95	169.99	138.78	172.64	172.64	253.73	165.27	206.90
Belgium (22)	380.36	-0.3	347.15	283.40	346.87	346.87	0.0	1.94	381.55	348.80	284.75	346.82	346.82	446.95	301.13	301.13
Brazil (29)	123.13	3.2	112.38	91.74	129.98	420.99	2.0	5.52	119.30	109.06	89.03	125.52	412.83	269.34	89.32	258.48
Canada (113)	206.20	0.2	188.19	153.63	217.66	228.25	0.2	1.74	205.70	188.04	153.51	216.42	227.73	248.78	159.94	240.83
Denmark (34)	407.33	0.2	371.75	303.49	429.98	377.50	0.6	1.93	406.62	371.72	303.46	427.82	375.36	537.33	406.62	485.28
Finland (29)	642.20	0.7	586.12	478.48	734.58	734.58	1.0	1.58	637.84	583.09	476.02	727.21	727.21	661.25	338.49	370.14
France (74)	322.08	-0.1	293.95	239.97	303.80	303.80	0.2	1.93	322.54	294.85	240.71	303.24	303.24	354.45	253.86	278.97
Germany (55)	262.68	0.8	239.74	195.71	244.84	244.84	1.1	1.59	260.64	238.27	194.52	242.15	242.15	325.61	228.35	261.44
Greece (36)	432.49	-1.0	394.73	322.24	456.54	913.26	-0.7	0.95	436.67	399.19	325.89	459.44	919.29	436.67	211.47	-
Hong Kong, China (66)	318.38	0.9	290.58	237.22	336.08	316.78	0.9	3.64	315.63	288.53	235.55	332.08	314.02	382.52	196.64	348.84
Indonesia (24)	44.60	0.4	40.71	33.23	47.08	242.00	0.9	1.20	44.42	40.61	33.15	46.73	239.79	64.52	19.04	46.33
Ireland (14)	519.59	-1.6	474.22	387.13	528.57	528.57	-1.3	1.94	528.15	482.81	394.16	535.52	535.52	605.85	396.15	504.79
Italy (53)	172.11	-1.0	157.08	128.24	228.15	228.15	-0.7	1.45	173.85	158.93	129.74	229.70	229.70	192.64	128.68	149.90
Japan (445)	110.26	2.6	100.64	82.15	116.39	82.15	2.4	0.90	107.52	98.29	80.24	113.12	80.24	110.28	76.83	101.71
Mexico (29)	1457.92	3.1	1330.61	1086.25	1538.97	15406.16	2.5	1.66	1413.99	1292.61	1055.27	1487.72	15026.98	1733.73	787.15	1558.39
Netherlands (26)	497.75	0.5	454.28	370.86	458.93	458.93	0.8	2.08	495.21	452.70	369.58	455.10	455.10	562.73	394.92	473.60
New Zealand (18)	64.14	-0.2	58.54	47.79	67.70	64.48	0.7	4.41	64.24	58.72	47.94	67.59	64.02	77.84	45.89	77.15
Norway (37)	235.37	-0.8	214.81	175.37	248.45	250.27	-0.8	1.93	237.31	216.94	177.10	249.68	251.85	357.71	181.86	326.84
Philippines (22)	88.20	2.3	80.49	65.71	93.10	170.62	2.2	0.95	86.21	78.81	64.34	90.70	168.90	106.98	42.48	95.63
Portugal (18)	226.90	-1.3	207.08	169.05	285.42	285.42	-1.0	1.15	229.88	210.14	171.56	288.22	288.22	299.39	194.13	-
Singapore (40)	217.24	-0.8	198.27	161.86	229.32	172.44	-0.6	1.58	218.95	200.15	163.40	230.36	173.39	246.74	102.45	224.47
South Africa (34)	206.23	0.9	188.22	153.68	217.70	282.37	1.7	3.41	204.96	186.82	152.52	215.02	277.71	346.20	151.55	295.51
Spain (30)	387.42	0.6	353.59	288.66	447.67	447.67	0.9	1.56	385.31	352.23	287.56	443.77	443.77	435.19	290.81	350.84
Sweden (43)	511.89	-0.2	467.19	381.39	540.34	622.94	0.8	1.98	512.79	468.77	382.70	539.53	617.85	628.19	379.18	566.79
Switzerland (30)	395.29	-0.5	360.77	294.52	417.26	359.31	-0.3	1.19	397.18	363.09	296.42	417.89	360.25	441.65	307.73	390.07
Thailand (31)	23.92	-1.8	21.83	17.82	25.25	34.53	-2.2	2.61	24.36	22.27	18.18	25.63	35.32	33.66	8.15	33.29
United Kingdom (202)	393.48	0.1	359.12	293.17	415.36	359.12	-0.1	2.66	393.19	359.44	293.44	413.69	359.44	401.84	307.96	376.79
USA (610)	538.45	-0.1	491.43	401.18	568.38	538.45	-0.1	1.23	539.14	492.88	402.36	567.25	539.14	539.14	390.12	440.63
Americas (781)	477.65	-0.1	435.94	355.88	504.20	405.61	-0.1	1.27	478.05	437.01	358.77	502.97	405.99	478.05	347.58	399.70
Europe (724)	356.38	0.0	325.26	265.52	376.19	339.44	0.2	2.01	356.29	325.70	265.90	374.86	338.77	386.24	282.63	335.54
Eurobloc (342)	101.56	0.1	92.69	75.67	102.46	102.46	0.4	1.75	101.44	92.73	75.70	102.00	102.00	113.92	81.53	-
Nordic (143)	493.39	0.1	450.31	367.61	520.82	518.05	0.8	1.85	493.01	450.69	367.93	518.71	514.20	555.97	360.04	483.65
Pacific Basin (721)	117.51	2.0	107.25	87.55	124.04	90.56	2.0	1.37	115.21	105.32	85.99	121.22	88.80	117.51	82.88	112.14
Euro-Pacific (1445)	216.60	0.6	197.69	161.38	228.64	183.99	0.7	1.81	215.27	196.79	160.66	226.49	182.64	221.79	166.00	206.29
North America (723)	515.82	-0.1	470.78	384.32	544.50	517.00	-0.1	1.25	516.42	472.09	385.41	543.35	517.60	516.42	374.92	427.98
Europe Ex. UK (522)	326.65	0.0	298.13	243.38	344.81	319.79	0.4	1.67	326.65	298.61	243.78	343.69	318.68	366.32	260.93	305.03
Europe Ex. Eurobloc (382)	98.79	-0.1	90.16	73.60	104.28	100.71	-0.1	2.28	98.86	90.37	73.78	104.01	100.77	103.93	77.40	-
Europe Ex. UK Ex. Eurobloc (180)	95.66	-0.4	87.30	71.27	100.98	96.47	0.0	1.43	96.04	87.80	71.68	101.05	96.46	109.21	75.16	-
Pacific Ex. Japan (276)	190.72	-0.2	174.07	142.10	201.33	196.25	0.4	3.29	191.19	174.77	142.68	201.15	195.56	216.04	128.28	206.58
World Ex. Eurobloc (1918)	110.83	0.2	101.15	82.58	116.99	110.09	0.2	1.47	110.56	101.07	82.51	116.33	109.83	110.83	83.09	-
World Ex. US (1650)	216.07	0.6	197.20	160.99	228.08	189.26	0.7	1.84	214.70	198.27	160.23	225.90	187.86	221.91	165.95	208.21
World Ex. UK (2058)	312.88	0.2	285.58	233.12	330.27	283.30	0.3	1.38	312.13	285.33	232.94	328.40	282.42	312.89	236.11	274.98
World Ex. Japan (1815)	424.35	0.0	387.29	316.17	447.94	419.87	0.0	1.59	424.55	388.11	316.84	446.69	419.76	427.98	320.58	374.34
The World Index (2260)	319.84	0.2	291.91	238.31	337.62	290.33	0.3	1.51	319.13	291.74	238.17	335.77	289.54	319.84	242.36	283.58

Emerging markets: IFC investable indices

4 pm close March 17

NEW YORK STOCK EXCHANGE PRICES

- A -

- B -

- C -

- D -

- E -

- F -

- G -

- H -

- I -

- J -

- K -

- L -

- M -

- N -

- O -

- P - Q -

- R -

- S -

- T -

- U -

- V -

- W -

- X - Y - Z -

52 week High	Low	Stock	Div	Yld %	P/E	Vol 100s	High	Low	Close Price	Chng Prev Close
69	33⅛	Xerox x	0.80	1.5	21	11459	[illegible]	[illegible]	[illegible]	[illegible]
63⅞	50¼	XI Cap	1.75	3.0	9	1474	60⅛	[illegible]	[illegible]	[illegible]
[illegible]	37½	Xtra Corp			10	149	[illegible]	[illegible]	[illegible]	[illegible]
31	22½	Yankee Egy x	1.38	5.8	21	105	24	[illegible]	[illegible]	[illegible]
[illegible]	27½	York Int	0.48	1.4	19	2301	35	[illegible]	35	[illegible]
[illegible]	6⅛	Zapata			3	444	[illegible]	[illegible]	[illegible]	[illegible]
59	31	Zeneca	0.80	1.9	22	2278	[illegible]	[illegible]	[illegible]	[illegible]
30½	[illegible]	Zenith Nat	1.00	4.0	19	74	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	Zenix Inc	0.67	11.1		197	[illegible]	6	[illegible]	[illegible]
[illegible]	[illegible]	Zweig/Glb	1.09	10.3		452	10½	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	Zweig Totl x	0.84	10.1		945	[illegible]	[illegible]	[illegible]	[illegible]

Price data supplied by Financial Times Information.

Yearly highs and lows for NYSE reflect the period from Jan 7 1998. Unless otherwise noted, rates of dividend are annual disbursements based on the latest declaration. Volume figures are unofficial.

d-new yearly low. P/E price-earnings ratio. vol- volume. u-new yearly high. x-ex-dividend or ex-rights. yld-yield. z-sales in full.
Dealings suspended.

GLOBAL EQUITY MARKETS

US INDICES

Dow Jones	Mar 16	Mar 15	Mar 12	1998/99 High	1998/99 Low	Since compilation High	Since compilation Low
Industrials	9930.47	9958.77	9876.35	9958.77 (15/3/99)	7539.07 (31/8/98)	9958.77 (15/3/99)	41.22 (8/7/32)
Home Bonds	104.48	104.65	104.42	107.17 (9/12/98)	104.13 (25/2/99)	107.17 (9/12/98)	54.99 (1/10/81)
Transport	3388.56	3404.65	3367.51	3686.02 (16/4/98)	2345.00 (8/10/98)	3686.02 (16/4/98)	13.23 (8/7/32)
Utilities	301.54	301.96	304.51	320.51 (8/10/98)	262.66 (9/1/98)	320.51 (8/10/98)	16.53 (8/7/32)

DJ Ind. Day's high 10062.84(10027.58) Low 9857.48 (9807.53) (Theoretical)
Day's high 10001.79(9970.15) Low 9826.58 (9862.48) (Actual)

Standard and Poors	Mar 16	Mar 15	Mar 12	1998/99 High	1998/99 Low	Since compilation High	Since compilation Low
Composite‡	1306.36	1307.28	1294.59	1307.28 (15/3/99)	927.69 (9/1/98)	1307.28 (15/3/99)	4.40 (1/6/32)
Industrials♥	1587.85	1564.00	1549.16	1587.85 (16/3/99)	1077.40 (9/1/98)	1587.85 (16/3/99)	3.52 (30/6/32)
Financial♥	143.15	145.47	143.77	147.89 (14/7/98)	95.80 (8/10/98)	147.89 (14/7/98)	7.13 (4/9/74)
Others							
NYSE Comp.	614.08	615.22	611.54	615.22 (15/3/99)	477.20 (8/10/98)	615.22 (15/3/99)	4.64 (25/4/42)
Amex Comp	716.31	720.91	721.21	753.87 (22/4/98)	583.75 (8/10/98)	753.87 (22/4/98)	524.20 (16/7/98)
NASDAQ Cmp	2439.27	2431.44	2381.53	2510.09 (1/2/99)	1419.12 (8/10/98)	2510.09 (1/2/99)	54.87 (3/10/74)
Russell 2000	399.17	400.84	398.38	491.41 (21/4/98)	310.28 (8/10/98)	491.41 (21/4/98)	123.36 (7/12/93)

RATIOS

	Mar 12	Mar 5	Feb 26	Year ago
Dow Jones Ind. Div. Yield	1.60	1.59	1.67	1.63
	Mar 10	Mar 3	Feb 24	Year ago
S & P Ind. Div. yield	1.12	1.17	1.14	1.36
S & P Ind. P/E ratio	40.71	38.32	38.67	29.26

US DATA

MARKET ACTIVITY

● Volume (million)

	Mar 16	Mar 15	Mar 12
NYSE	751.990	727.270	825.860
Amex	24.022	29.912	27.616
NASDAQ	983.827	854.843	322.097

NYSE	Mar 16	Mar 15	Mar 12
Issues Traded	3,556	3,556	3,549
Rises	1,305	1,529	1,393
Falls	1,672	1,443	1,537
Unchanged	579	583	619
New Highs	59	63	87
New Lows	82	76	85

NYSE TRADING ACTIVITY — Volume : 751,990,000

ACTIVE STOCKS

Tuesday	Stocks traded	Close price	Day's change
Compaq	21,772,500	32⅝	+1⅛
AmOnLne	16,764,100	104½	+3½
CadnceDsgn	13,726,000	23¼	−⅛
RiteAid	8,822,700	24½	−¼
PhMorr	8,445,200	38¼	+¼
AT&T	7,502,900	82¼	+⅛
MicrnTech	7,128,300	51¼	+2¼
LSI Lg	6,544,500	27⅛	+2¼
Citigrp	6,264,900	64¾	−1⅛
LucentTch	5,549,500	104½	−¼

BIGGEST MOVERS

Tuesday	Close price	Day's change	Day's chge %
Ups			
Saleg'd Sc	59	+10⅞	+22.4
ATTLMdA	64⅝	+9⅛	+16.4
Cmrgy	16¼	+1⅞	+12.9
RayJames F	20	+1⅞	+10.7
Downs			
Lone Star	12	−1⅛	−8.6
Solnctron	44⅞	−3⅛	−7.7
Laclede Gs	21	−1⅞	−7.4
Oregon St	10⅝	−¾	−6.9

NASDAQ TRADING ACTIVITY — Volume :983,827,000

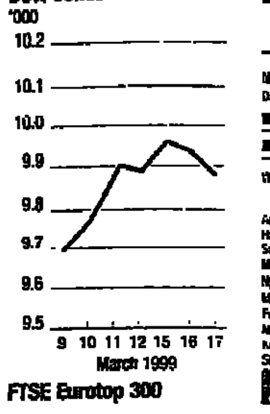
ACTIVE STOCKS

Tuesday	Stocks traded	Close price	Day's change
DellCmp	29,634,800	44⅝	+⅛
Intel	21,146,600	120⅛	+2⅝
Oracle	20,017,600	29⅞	−¼
Micsft	17,101,300	169¼	+3¼
CiscoSys	11,296,900	106	+1
ApplMat	10,048,600	63⅝	+3¼
ChancMed	9,237,800	42⅝	−2⅞
RdSn	9,018,300	20⅛	+3⅛
Cmpuwre	7,260,100	25¾	+1⅛
MCIWcm	7,130,600	88⅛	+½

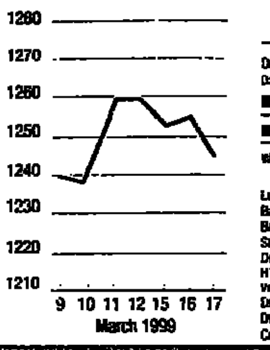
BIGGEST MOVERS

Tuesday	Close price	Day's change	Day's chge %
Ups			
InfTech	55⅛	+9	+19.4
RdSn	20⅛	+3⅛	+18.2
ExodusComm	118⅛	+14⅛	+13.8
AmtechCp	10⅛	+1¼	+13.7
Downs			
Cmre Cp	10⅛	−2⅛	−19.2
United St	13	−1⅝	−11.9
Liposme	12¼	−1¼	−9.8
IDX Sys	15¼	−1½	−9.1

Dow Jones
'000



FTSE Eurotop 300



JAPAN

	Mar 17	Mar 16	Mar 15	1998/99 High	1998/99 Low	Since compilation High	Since compilation Low
Nikkei 225	16288.11	16072.82	15779.60	17264.3	12880	38915.9	85.25

Day's high 16289.30 Day's low 15977.87.

TOKYO TRADING ACTIVITY — Volume : 1,223,460,000

ACTIVE STOCKS

Wednesday	Stocks traded	Close price	Day's change
AshiCp	35,121,000	92	−7
Hazeko	30,204,000	91	−12
Sakura	29,390,000	351	+21
MKi	28,150,000	82	+3
NpStl	24,161,000	241	+6
MzTrB	22,801,000	185	+6
FujiBk	21,865,000	699	+44
NikkoS	17,103,000	505	+31
KobeSt	16,365,000	93	+7
ShokB	16,323,000	190	+19

BIGGEST MOVERS

Wednesday	Close price	Day's change	Day's chge %
Ups			
NwJpSc	205	+35	+20.8
JSR Cp	640	+85	+15.3
Toray	634	+77	+13.8
SuciTrB	480	+56	+13.2
Downs			
FujtCo	96	−14	−12.7
Haseko	91	−12	−11.7
SanKg	114	−14	−10.9
KmGumi	103	−12	−10.4

GERMANY

	Mar 17	Mar 16	Mar 15	1998/99 High	1998/99 Low	Since compilation High	Since compilation Low
DAX	5077.43	5094.63	5029.24	6171.43	3896.08	6171.43	931.18

Day's high 5137.19 Day's low 5057.52

FRANKFURT TRADING ACTIVITY — Volume . (m)

ACTIVE STOCKS

Wednesday	Stocks traded	Close price	Day's change
Lufthn	576,184	21.7	+7.1
Bayer	466,007	35.8	+0.4
BASF	385,027	34.4	
Siemens	357,875	61.7	+0.8
DmlrCh	319,088	85.4	−0.35
H'chst	251,218	42.6	+0.7
Veba	232,078	52.8	−0.2
DrsdBk	227,809	38.1	−1.2
Dt Bk	226,817	51.9	−0.7
Cmrzbk	198,831	27.95	−0.45

BIGGEST MOVERS

Wednesday	Close price	Day's change	Day's chge %
Ups			
CoPrf	71	+6	+9.2
HorBnk	26.5	+2	+8.2
AachMunBr	107.5	+8	+8.0
CoKnz	90	+5	+5.9
Downs			
BerlKr	20.5	−1	−4.7
WellaPf	625	−25	−3.8
FrenMC	58.3	−2.1	−3.5
MueRRg	200.2	−7	−3.4

FRANCE

	Mar 17	Mar 16	Mar 15	1998/99 High	1998/99 Low	Since compilation High	Since compilation Low
CAC 40	4170.01	4186.35	4185.12	4388.48	2882.54	4388.48	984.61

Day's high: 4225.00. Day's low: 4161.06.

PARIS TRADING ACTIVITY — Volume : 698,323,240

ACTIVE STOCKS

Wednesday	Stocks traded	Close price	Day's change
Rnault	4,832,220	31.4	−2.07
FrTele	1,976,013	78.5	−1.1
Axa	1,483,615	128.5	+2
ElfAqu	1,323,176	121.6	+5
BNP	1,157,492	80	
RhonPA	980,458	43.5	−0.2
TotalB	954,177	108	+1.3
PechnyA	947,870	30.5	+0.1
Alstom	849,421	22.75	−0.43
STMicro	840,648	88.7	+4.7

BIGGEST MOVERS

Wednesday	Close price	Day's change	Day's chge %
Ups			
GpPart	69.5	+4.05	+6.2
Seb SA	64.4	+3.6	+5.9
STMicro	88.7	+4.7	+5.6
ElfAqu	121.6	+5	+4.3
Downs			
CastDb	186	−13	−6.5
Rnault	31.4	−2.07	−6.2
GrdVsn	21.61	−1.17	−5.1
AirLiq	134	−7	−5.0

UK

	Mar 17	Mar 16	Mar 15	1998/99 High	1998/99 Low	Since compilation High	Since compilation Low
FTSE 100	6140.5	6201.9	6206.8	6335.7	4648.7	6335.7	986.9

Day's high: 6201.9. Day's low: 6109.7.

LONDON TRADING ACTIVITY — Volume : 1,038,400,000

ACTIVE STOCKS

Wednesday	Stocks traded	Close price	Day's change
Tesco	30,648,110	167	+1½
Shell	30,448,410	397	+9¾
BP Amoco	22,356,150	1001	+31½
ASDA	16,865,260	142½	−¼
BT	14,988,510	996½	−42½
BTR Siebe	13,813,190	265	−13
Centrica	12,552,030	109½	−3¼
Rentokil	12,084,770	366½	−½
Electrocompnt	11,669,380	400	−24½
ICI	10,997,600	572	+23½

BIGGEST MOVERS

Wednesday	Close price	Day's change	Day's chge %
Ups			
MMS Petrol	50½	+15	+42.33
Reunion	93½	+20	+27.2
Mayborn Grp	42½	+8	+23.2
Dominion Eng	4¾	+¾	+21.4
Downs			
Devro	143½	−40	−21.8
Prestwick Hdg	14½	−3	−17.1
Crown Lels	25½	−3½	−12.1
Rea Bros	45½	−5½	−10.8

INDEX FUTURES

S&P 500	Open	Sett price	Change	High	Low	Est. vol.	Open int.
Mar	1305.00	1295.50	−10.50	1305.00	1292.00	55,684	112,828
Jun	1318.50	1308.50	−10.40	1318.80	1304.20	116,967	321,498
Nikkei 225	**Open**	**Sett price**	**Change**	**High**	**Low**	**Est. vol.**	**Open int.**
Jun	16000.0	16160.0	+280.0	16230.0	15910.0	40,330	193,879
Sep	16000.0	16070.0	+210.0	16010.0	15930.0	57	3,486

Open interest figures for previous day.

CAC-40 (200 x Index)	Open	Sett Price	Change	High	Low	Est. vol.	Open int.
Mar	4190.0	4172.5	−22.5	4229.5	4166.5	48,119	130,629
Apr	4177.0	4175.5	−22.0	4234.0	4174.0	1,879	6,788
DAX							
Mar	5078.0	5062.0	−28.0	5128.0	5052.5	66,737	226,041
Jun	5107.0	5094.0	−29.5	5161.0	5085.0	26,313	195,236

OMX	Open	Sett Price	Change	High	Low	Est. vol.	Open int.
Mar	719.75	717.00	−2.50	722.00	715.75	17,234	113,607
Apr	718.00	716.50	−2.50	721.25	714.75	8,147	12,269
EUREX							
Mar	7196.0	7228.0	+11.0	7283.0	7195.0	39,181	96,504
Jun	7145.0	7177.0	+5.0	7229.0	7130.0	24,830	63,770

WORLD MARKETS AT A GLANCE

Country	Index	Mar 17	Mar 16	Mar 15	1998/99 High	1998/99 Low	Yield	P/E
Argentina	General	17325.65	17425.86	17537.93	23485.50 23/3/98	12303.10 10/9/98	3.93	13.9
Investors kept cashing in profit after falling markets across rest of region sent downbeat signal.								
Australia	All Ordinaries	2977.8	2992.2	2989.5	2992.20 16/3/99	2458.20 1/9/98	2.79	24.1
	All Mining	580.6	583.9	592.0	713.10 23/4/98	499.80 31/8/98		
Lower across the board with telecoms and golds falling most. BHP swam against flow as falls beat rises by 3 to 2.								
Austria	ATX Index	1202.82	1213.35	1202.24	1628.56 28/5/98	982.06 1/10/98	1.94	13.1
Closed lower with investors keeping eye on expiry of March options later this week.								
Belgium	BEL20	3342.52	3348.24	3343.80	3681.92 8/1/99	2357.79 10/1/98	1.55	21.6
Closed marginally lower after investors failed to spot any buying signal. Steel wiremaker Bekaert lost 4.1 per cent.								
Brazil	Bovespa	10560.0	10658.0	10414.0	12298.00 15/4/98	4761.00 10/9/98	na	na
Lower on profit-taking, marking time after two successive positive sessions.								
Canada	TSE 100	400.77	403.34	402.58	475.63 25/5/98	324.91 5/10/98	1.67	18.8
	Metals Minls	3206.41	3228.32	3119.36	4390.01 10/3/98	2500.10 31/8/98		
	TSE300Comp	6580.00	6619.82	6606.00	7822.30 22/4/98	5335.70 5/10/98		
	Portfolio§§	3488.55	3524.60	3519.59	3865.81 25/5/98	2719.24 5/10/98		
High-tech, banking and mining stocks took brunt of profit-taking as investors tracked declining Wall Street.								
Chile	IGPA Gen♥	3977.47	3984.88	3980.54	4881.85 17/3/98	2880.85 14/9/98	3.11	13.2
Interest in telecom issues failed to translate into wider gains amid sluggish start on most markets in the region.								
China	Shanghai B	22.40	22.40	22.99	59.58 10/2/98	21.38 9/3/99	1.54	27.5
	Shenzhen B	46.64	48.27	46.68	98.97 10/2/98	41.58 10/3/99		
Hard-currency shares traded in thin volumes as investors awaited corporate results.								
Colombia	IBB	921.14	916.46	919.14	1431.46 7/1/98	776.17 14/10/98	na	na
Moved briskly ahead in early trading despite losses across region and fresh truck strike biting coffee exports.								
Czech Republic	PX 50	375.7	376.7	368.7	517.30 23/3/98	316.00 8/10/98	na	na
Closed slightly lower in brisk trading, together with rest of Europe. SPT Telecom, Komercni Banka main gainers.								
Denmark	CopenhagenSE	575.19	585.51	570.92	778.84 7/4/98	565.51 16/3/99	1.8	17.4
Shrugged off falls across Europe to post healthy gains, putting end to bearish sentiment over last few months.								
Egypt	Cairo SE Gen	445.15	445.31	446.13	447.62 1/2/99	345.40 2/2/98	na	na
Market heavyweight MobiNil shed 3 per cent ahead of results next week.								
Finland	Hex General	6254.67	6318.85	6283.59	6418.28 11/3/99	3220.43 12/1/98	1.63	34.3
Underperformed European markets, with Nokia weakness and early fall on Wall Street dampening sentiment.								
France	SBF 250	2637.14	2648.52	2645.49	2789.73 17/7/98	1873.10 12/1/98	2.17	21.4
	CAC 40	4170.01	4186.35	4185.12	4388.48 17/7/98	2882.54 12/1/98		
Ended hesitant day with losses after early fall on Wall Street sent market into red in late trading.								
Germany	FAZ Aktien	1619.99	1628.29	1599.58	1940.80 20/7/98	1250.50 2/10/98	1.37	19.6
	DAX‡	5077.43	5094.63	5029.24	6171.43 20/7/98	3896.08 8/10/98		
Marked pause after three-day advance. Lufthansa ended among biggest gainers in Europe on fresh M&A rumours.								
Greece	Athens General	3630.82	3598.09	3625.20	3630.82 17/3/99	1380.13 29/1/98	1.36	28.3
	FTSE/ASE 20	2247.37	2246.84	2255.21	2255.21 15/3/99	755.18 29/1/98		
Closed higher with investors now concentrating on industrials and small-cap stocks and deserting banks and telecoms.								
Hong Kong	Hang Seng	10940.07	10911.25	10838.86	11810.60 25/3/98	6660.42 13/8/98	3.26	15.6
	HSCC Red Chip	809.37	760.89	752.80	1775.89 27/2/98	578.07 1/9/98		
HSBC and HK Telecom led blue chips higher while China plays jumped amid hopes of a cut in mainland interest rates.								
Hungary	Bux	5717.77	5784.72	5819.67	9016.36 23/4/98	3775.82 21/9/98	na	na
Retreated for fifth session after domestic and foreign investors took to sidelines on worries about state of economy.								
India	BSE Sens.	3672.71	3744.18	3783.71	4280.96 21/4/98	2764.16 20/10/98	na	na
	S & P CNX 500	741.94	736.74	746.99	815.62 21/4/98	557.88 20/10/98		
Headed south in late trading after investors turned sellers in pharmaceutical and software counters.								
Indonesia	Jakarta Comp.	387.88	379.45	372.31	554.10 2/2/98	256.83 21/9/98	8.82	24.8
Broadly higher as sentiment continued to improve in wake of banking reforms and signing of letter of intent with IMF.								
Ireland	ISEQ Overall	(c)	5297.80†	5331.98	5471.61 21/4/98	3745.11 8/10/98	2.01	19.5
Israel	Tel Aviv 100	339.24	339.24	339.24	339.24 15/3/99	249.19 8/10/98	na	na
Italy	BCI Comit 30	355.43	368.06	370.69	388.60 20/7/98	248.51 9/10/98	1.97	25.8
	Banca Com Ital	1568.55	1572.7	1559.32	1654.36 7/4/98	1063.59 9/10/98		
	Mibtel General	24890.0	24945.0	25074.0	26377.00 6/4/98	16761.00 9/10/98		
Ended lower after eventless day dominated by losses on Wall Street. Comparr rose 10 per cent to upper limit on M&A talks.								
Japan	Nikkei 225	16268.11	16072.82	15779.60	17264.30 2/3/98	12880.00 9/10/98	0.85	58.6
	Nikkei 300	253.74	249.33	244.01	257.43 10/2/98	192.30 9/10/98		
	Topix	1260.09	1240.89	1211.18	1300.30 10/2/98	980.11 15/10/98		
	2nd Section	1464.57	1451.78	1427.47	1464.57 17/3/99	1028.84 13/10/98		
Higher on very heavy volumes. Banks and securities firms outpaced as rises beat falls by about 10 to 7.								
Jordan	Amman SE	182.86	182.89	182.16	185.23 8/3/99	159.46 18/11/98	na	na
Traded sideways as foreign and domestic investors deserted market. Industrial stock Dar al-Dawa lost 0.3 per cent.								
Malaysia	KLSE Comp.	511.85	511.90	518.45	745.38 27/2/98	262.70 1/9/98	2.76	14.7
Late buying of blue chips held index steady while in broader market falls swamped rises fourfold. Volumes were thin.								
Mexico	IPC	4851.38	4890.39	4769.90	5204.00 2/1/98	2856.18 10/9/98	1.1	18.6
Retreated under profit-taking after hesitant start as investors took cue from New York and neighbouring markets.								
Morocco	CASA	797.42	794.10	790.35	883.98 1/9/98	686.67 21/1/98	na	na
Netherlands	CBS TtlRtnGen	1329.8	1330.1	1320.0	1493.00 20/7/98	974.90 8/10/98	2.11	27
	CBS All Shr	740.0	740.2	734.6	845.00 27/7/98	548.10 8/10/98		
Closed lower, dragged down by selling orders in selective blue chips following batch of disappointing company results.								
New Zealand	Cap. 40	2169.91	2182.32	2166.76	2360.82 20/3/98	1688.24 2/10/98	5.04	22
Lower in thin volumes with weak NZ$ and volatile debt markets after debut official cash rate was higher than expected.								
Nigeria	SE All-Share	(u)	5416.96	5418.34	6504.87 11/2/98	2236.40 12/1/98	na	na
Ended higher, propped up by sustained demand in Nigerian Breweries.								
Norway	Oslo SE Ind	1818.22	1820.41	1827.03	2370.68 4/5/98	1359.78 8/10/98	2.4	11.9
Posted slight loss after weakness in European markets offset gains in oil-related stocks.								
Pakistan	KSE-100	1050.76	1058.47	1068.98	1746.31 2/1/98	765.73 14/7/98	na	na
Hub Power rose 2 per cent ahead of tomorrow's court decision on tariff row with government.								
Peru	Lima Gen	1437.70	1449.46	1454.95	1903.91 4/5/98	1159.59 21/9/98	na	na
Philippines	Manila Comp	1982.79	1981.64	1941.34	2311.42 25/3/98	1082.18 11/9/98	1.35	14.4
Banks led gains on hopes that central bank will cut reserve requirements further to spur lending.								
Poland	Wig	13651.4	13807.0	14014.8	18882.70 11/3/98	10473.70 9/10/98	2.12	11.5
Bucked bearish trend in Europe to end slightly ahead as currency edged higher on improved sentiment about economy.								
Portugal	BVL 30	4454.96	4566.41	4618.42	6176.89 22/4/98	3598.08 2/10/98	2.22	24.9
	PSI 20	10262.08	10527.79	10641.45	14293.09 22/4/98	8114.51 2/10/98		
Market drifted lower, partly weakened by arbitrage with contracts on PSI20 futures expiring at end of week.								
Russia	RTS	90.02	86.62	83.83	411.61 5/1/98	38.53 5/10/98	na	na
Shares closed at 1999 highs as optimism continued to fuel strongest rally to hit market for six months.								
Singapore	SES All-S'pore	392.61	397.81	399.43	437.98 19/3/98	253.20 4/9/98	2.09	21.2
	Straits Times	1470.16	1489.54	1494.19	1698.75 19/3/98	805.04 4/9/98		
Sentiment hurt by poor results from DBS Land, with its shares falling 6.1 per cent. Falls beat rises by 7 to 3.								
Slovakia	Sax	82.59	81.57	81.63	182.48 5/1/98	81.48 3/3/99	na	na
Market boosted by 12 per cent rise in troubled steel-maker VSZ although traded volume only moderate.								
South Africa	JSE All Share	6519.9♥	6505.6	6409.8	8398.70 20/4/98	4894.40 11/9/98		
	JSE Gold	930.8♥	938.1	966.9	1310.60 8/10/98	672.80 18/3/98		
	JSE Indl.	7583.4♥	7551.3	7477.4	9942.70 20/4/98	5246.90 11/9/98		
Shares edged ahead at end of busy day which saw record 1999 turnover as market geared up for today's futures closeout.								
South Korea	KoreaCmpEx**	600.52	601.83	592.02	640.95 11/1/99	280.00 16/6/98	0.97	25.9
Falls nearly doubled rises as shares dipped in wake of recent gains. But banks moved higher on foreign demand.								
Spain	Madrid SE	897.34	904.79	898.31	947.82 17/7/98	642.29 5/10/98	1.87	21.6
Banks, strong in recent sessions on hopes of mergers in sector, succumbed to profit-taking.								
Sri Lanka	CSE All Share	532.41	528.94	529.95	789.78 4/5/98	461.00 3/9/98	na	na
Lifted by gains in selective blue chips.								
Sweden	AffarsvardnGen	3412.6	3431.4	3409.9	3966.60 20/7/98	2411.70 8/10/98	1.83	20.6
Ericsson sharply lower in spite of its promise of exciting news today at Hanover's technology trade show.								
Switzerland	SMI Index	7231.8	7218.9	7240.9	8412.00 21/7/98	5128.50 5/10/98	1.36	23.8
	SPI General	4580.65	4571.79	4581.31	5237.39 20/7/98	3311.28 5/10/98		
Novartis under pressure after several banks and brokers reduced earnings estimates and forecasts after Tuesday's results.								
Taiwan	WeightedPr.**	6757.07	6672.23	6598.32	9277.09 2/3/98	5474.79 5/2/99	1.5	20.7
Electronics sector – up 1.8 per cent – continued to lead market higher. Turnover remained active at T$137bn.								
Thailand	Bangkok SET	356.80	354.95	360.88	558.92 3/2/98	207.31 4/9/98	0.9	7.4
Broadly higher in thinner volumes as market awaits news on stimulus package and IMF letter of intent later in week.								
Turkey	IMKB Nat 100	4067.84	3909.05	4047.21	4530.99 16/7/98	1852.28 8/10/98	3.12	18.9
Increased optimism that general election scheduled for April 18 would not be delayed sent prices higher.								
Venezuela	IBC	3968.41	3986.54	3961.74	7858.92 23/3/98	2894.70 10/9/98	na	na
Trading slightly lower at midsession with investors unfazed by higher oil prices.								
Zimbabwe	ZSE Industrial	8600.91	8559.51	8440.83	8795.71 31/3/98	5441.85 1/9/98	na	na
Shares extended rise since January to almost 35 per cent on bargain hunting coupled with euphoria over corporate reports.								
WORLD	FT/S&P World($)	(u)	319.84	319.13	319.84 16/3/99	242.36 5/10/98	na	na
	MS Capital Int$	1194.5*	1197.6	1194.8	1197.58 16/3/99	888.50 12/1/98	na	na
CROSS-BORDER	DJ Stoxx 50	3558.57	3580.77	3565.22	3670.82 20/7/98	2433.07 8/10/98		
	DJ Euro Stx 50	3589.16	3606.67	3582.78	3685.36 6/1/99	2419.23 8/10/98		
	FTSE E300	(u)	1255.25	1252.01	1327.88 20/7/98	893.55 5/10/98		
	FTSE E100	(u)	2907.97	2895.46	3068.91 20/7/98	2049.91 8/10/98	na	na
	HSBC Drgn	(u)	234.33	232.35	273.91 26/3/98	161.71 5/10/98	na	na
	ING Bmgs Emrg	(u)	121.74	120.52	123.12 7/1/99	86.84 11/9/98	na	na

– Sat Mar 13: Taiwan Weighted Price (c) §§ Montreal. ♦ Toronto. (c) Closed. (u) Unavailable. ‡ XETRA-DAX after-hours index: Mar 17 - 5062.59 −28.34 † Correction. * Calculated at 15.00 GMT ● Excluding bonds. ‡ Industrial, plus Utilities, Financial and Transportation. ♠ The DJ Ind. Index theoretical day's highs and lows are the averages of the highest and lowest prices reached during the day by each stock, whereas the actual day's highs and lows represent the highest and lowest values that the index has reached during the day. (The figures in brackets are previous day's). ♥ Subject to official recalculation. ✣ Yields and P/E ratios are based on Datastream Total Market Indices. ✣ Midsession.

THE NASDAQ-AMEX MARKET GROUP

4 pm close March 17

Stock	Div.	P/E	Vol 100s	High	Low	Last	Chng
[illegible]							

AMEX

4 pm close March 17

Stock	Div.	P/E	Vol 100s	High	Low	Last	Chng
[illegible]							

STOCK MARKETS

Bourses suffer anti-climax after US record

WORLD OVERVIEW

There was an element of "the morning after the night before" on stock markets yesterday with investors apparently suffering a sense of anti-climax following the brief foray of the Dow Jones Industrial Average above the 10,000 level, *writes Philip Coggan.*

The failure of the Dow, on Tuesday at least, to close above 10,000 means that the Asian and European markets did not start the day with much momentum, although the Nikkei 225 average continued its recovery by consolidating its position above 16,000.

Robin Aspinall of National Australia Bank says: "The Nikkei has risen by about 15 per cent in the last couple of weeks. The reason? The weight of foreign buying. On every other occasion when Japanese equities have been buoyed by foreign buying, it has been met and eventually overwhelmed by domestic selling.

"This time round it is a bit different in that the scale of potential selling is so much bigger: perhaps a third of the market's capitalisation is in cross-holdings that must be unwound."

European markets started in a rather sluggish fashion and failed to make much progress during the day.

The monthly economic report of the German finance ministry indicated that there was no sign of an early economic pick-up. But hopes were not high that the European central bank, which meets today, would cut interest rates.

The irony is that Germany, which was in the vanguard of those pushing for a single currency, now finds it cannot take action to revive its economy because rate cuts are not seen as appropriate for the rest of the euro-zone.

Merrill Lynch describes Germany as "the sick man of Europe" saying the economy is in "a vicious circle in which excessive payroll taxes cause higher unemployment; higher welfare costs then lead to a further rise in payroll taxes and unemployment".

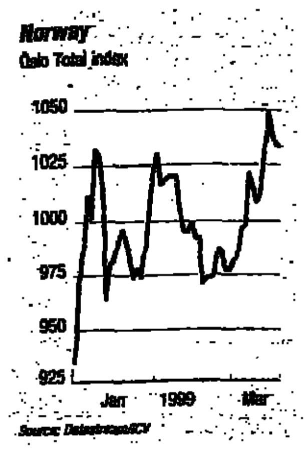
Finally, Wall Street showed little sign of mounting a renewed assault on 10,000 when it opened for trading with the Dow falling more than 50 points by mid-morning.

European investors still find it hard to muster the same enthusiasm for US equities as their American counterparts.

Nigel Richardson, chief investment strategist at Axa investment managers, is overweight equities relative to bonds because he believes the world will enjoy a soft economic landing this year. However, he is underweight the US where valuations have become stretched and the situation looks fragile.

MARKET FOCUS

Oslo climbs out of cold storage



The cold snap that gripped the Oslo Total index for most of last year – making it one of Europe's worst performing equity markets – has begun to thaw, with signs of fresh growth emerging in some of Norway's most heavily traded stocks.

So far this year, the index has proved the fifth largest climber among leading international indices, rising almost 12 per cent as the market welcomed two interest rate cuts and a modest rise in crude oil prices.

Despite the rebound, Oslo remains overexposed to the highly cyclical oil and shipping industries, while onshore manufacturing industry has failed to sparkle.

"Growth companies are not growing fast enough, manufacturing companies saw declining profits and companies that delivered good performances in 1998 are warning of dark clouds on the horizon," said the latest monthly bulletin from the stock exchange.

So are the recent share price rises justified, particularly given the sharp slowdown in the economy and interest rates that remain far above most other western European economies?

The growth in some stocks may underline their volatility in a thinly-traded market; the all-share index fell 4.5 per cent in February, after reversing some of last year's losses with a 9.5 per cent gain in January.

But while it is far from certain that equity gains seen this month will stick, signs of a stabilising oil price at about $12 per barrel – against $10 in February – have helped to revive oil-related and offshore stocks.

This month, Saga Petroleum, the country's largest independent oil producer, has posted a 12 per cent gain.

And smaller offshore companies, including TGS Nopec Geophysical, Petroleum Geo-Services and Stolt Comex Seaway, have also rebounded.

After a miserable February, the country's two largest lenders Den norske Bank and Christiania have regained some ground. This month's cut in interest rates on deposit and overnight loans to 7 per cent and 9 per cent respectively helped spark interest in the financial index, which fell 5.3 per cent in February.

Christiania has risen 7.3 per cent in the past week and DnB by 7.7 per cent. And expectations that rates could fall to 6 per cent in the summer and 4.5 per cent by the end of the year could prompt further interest in bank stocks, as should continued merger and acquisition activity.

But the all-share index may yet be dragged down by weakness in consumer stocks such as Orkla, the food and drinks group. A decline in consumer confidence and weak growth prospects have contributed to Orkla shares falling almost 8 per cent over the past week.

Such uncertainties could overshadow the signs of recovery in the Total index. It would only take an unexpected dip in the oil price or the absence of further bold interest rate cuts to put the market back into cold storage.

Tim Burt

Dow drops below 9,900 as banks sold

AMERICAS

Only a day after its brief foray above the 10,000 level, the Dow Jones Industrial Average had fallen back below 9,900 by midday, dragging the broader market with it, *writes John Labate in New York.*

Investors remained more interested in locking in profits than in re-testing the new milestone in the market. Declining shares outnumbered advancers on the New York Stock Exchange by a margin of 17 to 10.

By early afternoon the Dow had lost 56.34 or 0.6 per cent at 9,874.13 and the broader Standard & Poor's 500 index was down 11.86 or 0.9 per cent to 1,294.52.

US Treasury prices also fell back in early trading, sending the yield of the 30-year bond back above 5.5 per cent.

Financial shares, including brokers and banks, were among the most heavily sold shares after a series of strong rises. In the Dow, Citigroup fell $1 1/16 to $63¼ and American Express lost $2 1/16 to $121.

Most cyclical Dow shares were down, including Allied Signal, off $1 1/16 to $44 11/16, and Minnesota Mining & Manufacturing, off $2¼ at $76 1/16.

But Caterpillar shares rallied, up more than 6 per cent at $46⅝ after analysts at Salomon Smith Barney raised it to "buy" from "neutral".

In the brokerage sector, shares of Donaldson, Lufkin & Jenrette were down $3 3/16 or more than 5 per cent at $65¼ after the company announced plans to launch a tracking stock for its online division, DLJdirect.

Transport shares were also mostly down on the day, but Airborne Freight climbed $1½ to $31 11/16 after PaineWebber raised the stock to a "buy" rating.

Sonat dropped $1/16 to $28 1/16 after CS First Boston downgraded the shares to a "hold". Sonat this week agreed to a takeover by El Paso Energy.

Retailing shares were mostly lower, including Saks, down 6 per cent or $1¾ to $27 a day after issuing its quarterly results.

But restaurant company Wendy's climbed 6.4 per cent to $29 after it said it would top expectations for its forthcoming earnings.

TORONTO was weak at midsession, taking its lead from Wall Street. The TSE-300 composite index was 26.82 lower by early afternoon at 6,593.00 in volume of 33.8m shares.

The market opened flat, with eight of the market's 14 sub-indices higher, led by a 1.1 per cent rise in the gold and precious minerals index.

In the gold group, Teck was 25 cents higher at C$11.25 but Placer Dome turned back from an early high of C$18.30 to trade 20 cents weaker at C$17.80.

Financials were weaker from the start. By midsession, Canadian Imperial Bank of Commerce was trading 80 cents lower at C$38.85.

Software maker Corel was halted in both Toronto and on the US Nasdaq market after tumbling in morning trade.

Before the halt, Corel fell C$1 to C$5 in volume of more than 500,000 shares. Analysts noted that the Ottawa-based Corel was due to report results soon for its first quarter which ended in February.

Dax surge runs out of steam

EUROPE

Shares in **FRANKFURT** paused for breath after the three-session surge that followed the resignation of Oskar Lafontaine, the German finance minister, and the Xetra Dax index lost 28.34 to 5,062.59.

Siemens put on 70 cents to €61.29 after the industrial giant said its semiconductor earnings had improved significantly and that its semiconductor operations would become a separate company from April 1.

BMW climbed €16.50 to €623 ahead of results due today. DaimlerChrysler lost €1.40 to €84.31 on profit-taking after recent gains.

The FTSE Eurotop 300 index fell 9.40 or 0.75 per cent to 1,245.86. See Euro Prices page.

Lufthansa put on €1.10 to €21.60 after being named by a Thai government official as one of at least three big suitors expected to bid for a stake in that country's airline.

Dresdner lost €1.75 to €38.05 on profit-taking after recent strength on the back of BNP's bid for Société Générale and Paribas.

Insurer AMB jumped to a high of €114 as Morgan Stanley Dean Witter raised its recommendation to a strong buy. The share pulled back to close €3.05 higher at €108.

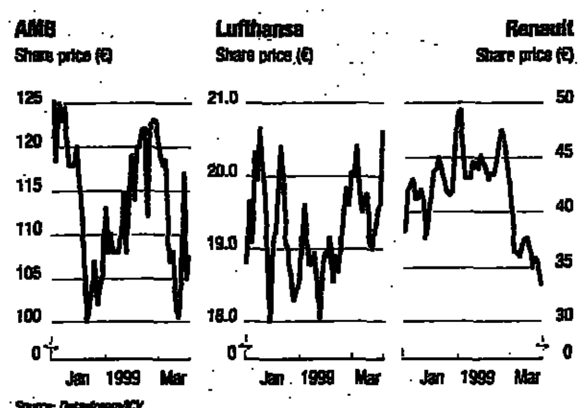
PARIS ended a uninspiring day 0.4 per cent lower after an early fall on Wall Street sent the CAC-40 into the red. The blue-chip index closed 16.34 off to 4,170.01.

Renault tumbled €2.07 or 6.2 per cent to €31.40 after it said late on Tuesday that it would seek a 35 per cent stake in Nissan. Rival Peugeot also eased, losing €3 to €135.50.

Air Liquide fell back €7 or 5 per cent to €134, more than paring its gain on Tuesday.

High-tech shares turned in a good performance, with Cap Gemini up €4.10 to €146.20 and STMicroelectronics posting a hefty €4.70 gain to €88.70 after Merrill Lynch upgraded its recommendation for the stock.

A positive strategy meeting with analysts on Tuesday and robust oil prices helped Elf-Aquitaine to move €5 ahead to €121.60.



Axa added €2 to €128.50 on expectations the insurer will post sharply higher profits when it reports today.

AMSTERDAM ended a shade lower after the AEX index failed to breach resistance at 543, retreating 0.67 to 539.97 in late trading.

KPN Telecom NV closed €2.95 or 7.3 per cent lower to €37.50 after posting positive 1998 results, but saying the outlook for 1999 had darkened, blaming measures by the Dutch telecom regulator.

Disappointing 1998 results also hit packaging company Van Leer, down €1.30 to €16, and publisher VNU, off €1 to €36.80.

But Philips rose for the seventh day running to close €1.60 higher at €71.75, hitting an 8-month high.

ZURICH edged ahead in a mostly quiet, directionless session which left the SMI index 12.9 ahead at 7,231.8.

There was, however, action to be found in Novartis, which slumped 2 per cent, and in CS Group, Swiss Life and Sulzer which all posted clear gains.

Novartis continued to lose ground, down SFr54 to SFr2,480 in response to downgrades following its 1998 results on Tuesday and a poorly received presentation to analysts. In contrast, Roche certificates put on SFr154 to SFr18,070.

Swiss Life was a strong performer, adding SFr37 to SFr995 on news that most of UBS's old 25 per cent stake in Switzerland's largest life insurer had already been placed with a variety of institutional investors.

A spokesman declined to comment on an unconfirmed news report that Swedish insurance group Skandia may be considering a bid for Swiss Life.

Sulzer, which posted a sharp rise on Tuesday after chief executive officer Fritz Fahrni resigned, added another SFr19 to SFr963 .

CS Group rose SFr8 to SFr267, adding to the gains that followed Tuesday's results.

Ascom, the telecoms group, jumped SFr205 or 8.5 per cent to SFr2,600 on a report that it would co-operate with Germany's Siemens to develop powerline communications.

Ascom shares shot up last week on news that it and German utility RWE had made a breakthrough on ways to communicate via power lines.

Holderbank gained strength on the back of several recommendations. The cement group added SFr64 to SFr1,662.

MADRID was dragged down by weakness in bank issues. The general index conceded 7.45 or 0.8 per cent to 897.34.

Banks came under pressure after Argentaria and BBV denied they had plans for a merger.

Both banks retreated 2.1 per cent with BBV shedding 30 cents to €14.13 while Argentaria lost 49 cents to €22.97. Banco Santander was down 35 cents to €18.81 and BCH fell 22 cents to €11.27. Banco Popular and Bankinter also posted losses.

HELSINKI underperformed the rest of Europe, with an early fall on Wall Street weighing on sentiment. The HEX index gave up 70.14 or 1.11 per cent to 6,254.67.

Ferry operator Neptun Maritime lost some of its sharp Tuesday gains, ending 12 cents or 4.8 per cent off at €2.36, posting one of the worst performances in Europe.

Insurer Pohjola added €1.40 to €54 on speculation that Britain's Royal & Sun was considering bidding for a 25 per cent stake in the group.

Written and edited by Michael Morgan, Bertrand Benoit, Peter Hall and Nicola Wilson

São Paulo weakened by fresh profit-taking

SAO PAULO marked time, putting an end to a two-day rally that took the market to a seven-and-a-half month high. The Bovespa index was trading 0.8 per cent lower at midsession, weakened by a fresh bout of profit-taking.

The central bank unsettled investors on Monday when it reported its sharpest drop in foreign reserves since it began publishing the figures early last month. Reserves were down $498m to $34.64bn since the beginning of February.

MEXICO CITY tracked neighbouring markets, taking a turn south after two weeks of rising prices. The IPC index was 1.3 per cent lower after a hesitant start despite heavy volumes.

Traders blamed the pause on profit-taking and said they expected prices to rally later in the week.

Jo'burg claws back losses

SOUTH AFRICA

Johannesburg edged ahead at the end of a day that saw record 1999 turnover as the market geared up for today's futures close-out.

After spending much of the session in negative territory, the overall index clawed its way to a positive close, gaining 14.3 to 6,519.9. Turnover was R2.3bn compared with the previous high of R2.1bn on January 13.

Industrials rose 32.1 to 7,583.4 but golds lost 5.3 to 930.8.

Wall St gains inspire Tokyo

ASIA PACIFIC

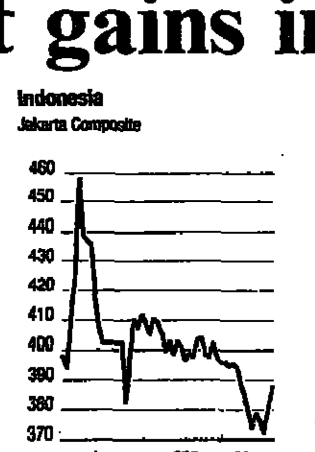
Bargain-hunters turned out in force to keep **TOKYO** at a seven-month high as Wall Street's brief overnight foray above the 10,000 level inspired investors, *Reuter reports.*

The Nikkei 225 Average closed 195.29 or 1.2 per cent higher at 16,268.11, its best finish since July 31 last year.

Strategists said they expected the market to make more headway, while digesting profit-taking at the same time. Investors were likely to want to raise their weighting in Japanese stocks which still looked cheap compared with shares in Europe and the US.

A total of 1.2bn shares changed hands on the first section of the Tokyo exchange, up from 1.1bn on Tuesday. Broader indices were also higher. The Topix index of all first-section shares was up 19.20 or 1.6 per cent at 1,260.09 while the Nikkei 300 index was 4.41 or 1.8 per cent higher at 253.74. Advancing issues outpaced decliners 701 to 497, with 127 unchanged.

Nissan Motor gave up Y8 or 1.7 per cent at Y465 as investors were unimpressed with a bid for a stake in the company from Renault.



Telecommunications stocks gained after news that NTT Data Corp would be included in the Nikkei 225 average from March 25.

NTT Data rallied Y61,000 or 8.2 per cent to Y806,000 and NTT Mobile Communications Network Y160,000 or 3 per cent to Y5,450,000.

Nippon Telegraph and Telephone rose Y30,000 or 2.7 per cent to Y1,150,000 in spite of news that Japan's finance ministry planned to sell its 1m NTT shares.

Clarion, the car audio equipment maker which will also be included in the 225 average, was Y35 or 7.6 per cent higher at Y495.

JAKARTA was dominated by foreign demand for blue chips as the announcement of a new letter of intent with the IMF, coupled with recent banking reforms, helped to lift sentiment. The composite index closed up 8.43 or 2.2 per cent higher at 387.88.

Among stocks in demand, Telkom, also listed in New York, put on Rp75 to Rp2,875. Pulp paper company Indah Kiat was up Rp125 at Rp2,275 while international telecom firm Indosat rose Rp175 to Rp12,075 rupiah.

SINGAPORE ended 1.3 per cent lower, with the Straits Times index shedding 19.38 to 1,470.16, dented by adverse company news.

DBS Land fell 15 cents to S$2.29 after announcing a S$239m loss and substantial provisions for investment.

United Industrial Corp topped the list of active stocks, boosted by speculation that it could become a takeover target. UIC added 3 cents to 90 cents.

TAIPEI continued to benefit from sustained buying by foreign equity funds, with the weighted index passing the 6,700 mark to end 84.84 or 1.27 per cent higher at 6,575.07 despite late profit-taking.

Electronics stock remained ahead of the pack, with the sectoral index adding 1.8 per cent, up 7.2 per cent on the week. Microchip giant Taiwan Semiconductor soared T$5 to T$105.

BOMBAY gave up 1.9 per cent as investors booked profits in several sectors including pharmaceuticals and software. The BSE 30 index finished 70.44 lower at 3,673.74 as investors also squared positions ahead of a local holiday today.

HONG KONG made another bull run at the 11,000 level on the Hang Seng index but the market ran out of energy and the blue-chip index finished 28.82 ahead at a 1999 high of 10,940.07.

SYDNEY called a halt after three straight days of record highs, and the All Ordinaries index closed 14.4 weaker at 2,977.8.

KUALA LUMPUR's composite index hit a fresh 1999 intraday low of 502.50 but bounced back to finish 0.05 easier at 511.85.

EUROPEAN OVERVIEW by Neil McCartney

Sector enjoys its most successful year

But despite all the good news of 1998, there may be trouble ahead for many incumbent operators. Prices are falling rapidly and there is significant excess capacity

The European telecommunications sector enjoyed perhaps its best-ever year in 1998. A period which started with the full liberalisation of most of the leading continental markets ended with stocks trading at an all-time high, fuelled by the explosive growth of mobile, Internet and other data services which helped to produce an unprecedented wave of mergers and acquisitions.

But not every company in the sector can look forward to a rosy future. Many incumbent operators, faced by an array of new rivals supported by generally pro-competitive regulatory policies, are losing market share more quickly than expected. Prices are being driven rapidly downhill.

This trend is being accelerated by a wave of investment in new networks, allied to a switch to more efficient technologies, which is producing excess capacity. Providers of telecoms services are thus being forced to find new ways of generating revenues while at the same time cutting costs. Not all of them will survive.

The overall size of the European market is growing at about 8 per cent a year, according to Commerzbank, the German investment bank, reflecting the fact that retail spending on telecoms is accounting for a growing proportion of gross domestic product.

The bank predicts that the value of the top six territories – the UK, Germany, France, Italy, Spain and the Netherlands – will grow from $129bn in 1997 to $246bn in 2005. Much of this expansion will come from mobile services which are forecast to account for 34 per cent of the total in 2005, up from 19 per cent in 1997.

The share taken by advanced services will rise from 14 per cent to 19 per cent. The contribution from basic telephone services will drop from 60 per cent to 40 per cent.

The increase in mobile revenues is being driven by the seemingly inexorable rise in the number of mobile subscribers. Last year, the western European total grew by 67 per cent to reach 92m, according to the FT's Mobile Communications newsletter. This month, the total is expected to top 100m, equivalent to about 25 per cent of the population. Analysts expect these figures to double by the end of next year.

The number of western European PCs connected to the Internet is also rising strongly. Last year, Dataquest Europe forecast that the total would rise from 13m to 21m during the course of 1998, and would reach 69m by the end of 2002.

But basic telephone revenues are increasingly only slowly. While call volumes are rising, the effect is being largely cancelled out by reductions in tariffs.

Partly because of this shifting pattern of revenues, the main beneficiaries of the expansion of the European market are likely to be the new entrants including companies such as Mannesmann of Germany and Vodafone and Cable & Wireless Communications of the UK. Commerzbank predicts that their combined revenues will grow from $16bn in 1997 to $96bn by 2005. Incumbent operators will see a much less spectacular rise from $113bn to $150bn.

One of the main problems for the incumbents is the rate at which they are losing market share. In the UK, where basic competition was introduced in 1984, it has taken 14 years for BT's share of the fixed market to drop below 70 per cent. In continental European markets this process is happening much more rapidly.

In Germany, Deutsche Telekom has already lost up to 30 per cent of the long-distance market, according to some estimates. This is largely because the national regulator decided that new entrants should pay a relatively low interconnection rate to pass calls over Deutsche Telekom's network, thus allowing these companies to undercut the national carrier's retail prices by significant amounts.

At the start of this year Deutsche Telekom fought back by cutting its long-distance and international call charges by more than 50 per cent. But this move has prompted fears about the company's long-term profitability.

Prices are also under pressure because of technological change. The rise in the level of data traffic, partly caused by the rapid growth of the Internet, is pushing operators to invest large sums in networks based on packet-switching technologies, which can carry traffic much more cheaply than the traditional circuit-switched systems because they are far more efficient. Gemini Consulting calculates that the cost of sending 650 megabytes of data from New York to London is only $1.98 using an Internet Protocol (IP) based network, compared with $27.08 using the public switched telephone network.

Gemini argues that investment in these more efficient technologies could cut operators' cost bases by 80 per cent to 90 per cent and trigger a fundamental shift in market economics. This presents a significant opportunity to the newer operators, which, unlike the incumbents, do not have a lot of investment tied up in old networks.

At the same time, the scale of development is quickly leading to the creation of a significant degree of excess capacity. For example, more than a dozen groups are already building high-capacity pan-European networks including BT, the Deutsche Telekom-France Telecom alliance, MCI Worldcom, Colt, Level 3, KPN-Qwest, GTS-Esprit, Global Crossing and Telemonde. This process is likely to fuel a period of consolidation which will see the withdrawal or death of some of the weaker operators, particularly among the later entrants, and continued merger activity among the remainder.

Gemini argues that this is part of a worldwide trend in which the surviving operators will be driven to make acquisitions in order to increase their geographic base, to enter new services or to broaden their skills base.

Already this year, Vodafone has taken over AirTouch in a deal driven primarily by Vodafone's desire to acquire AirTouch's European cellular interests and a merger agreement has been struck between Telia and Telenor, the national carriers of Sweden and Norway. Similar transactions are sure to be in the pipeline.

The author is the editor of FT Telecoms Markets and FT Mobile Communications.

THE UK by Peter Purton

Is this finally the end of regulation as we know it?

As the distinctions between telecoms, information processing and entertainment disappear it may be time to let the dynamics of the market take over

Has the time come to take a back seat on telecommunications regulation? There are now hundreds of carriers in the UK offering all types of services from plain old telephone calls to satellite up-links. Can the market now take care of itself?

Not only is the competitive situation transformed from that of a virtual monopoly when the Office of Telecommunications was created in 1985, but the pace of change has accelerated to a dizzying speed. Mobile communications just a few years ago was seen as a premium and specialist service. Now most in the industry are convinced that the mobile phone will soon be most people's primary phone.

The Internet, which was a word few people outside of academic or computing circles would have even recognised when Oftel was born, has now created, as though from nowhere, some 10m users in the UK alone. And its impact is only just beginning to be felt.

The distinctions between telecoms, information processing and entertainment are breaking down as digital technology permeates all three sectors.

Computers can now be used to make cheap long-distance voice calls. The Internet means that what may appear to be a local task performed on a computer right in front of you, may actually be enacted on an anonymous computer in a different country on a different continent. And the cable laid to connect your phone to the outside world could also be used to bring television, radio, computer games or video-on-demand to your home.

There is also a pan-European dimension to be taken into account. Operators in the telecoms industry – both on the supply and the user sides – could well have operations in more than one European Union country. In a Single Market they have a right to expect similar regulatory conditions to exist in each EU country. Certainly, they should not feel that indigenous companies have any sort of regulatory advantage over those from other EU countries.

There might be a temptation in some quarters to give up on what at times must appear to be vain human attempts to control telecommunications and let the dynamics of the market take over.

Anne Lambert, director of operations at Oftel, has set out a few principles which she thinks should underlie future regulation:

- Don't regulate unnecessarily;
- Be neutral on technology;
- Have a flexible adaptable framework;
- Have national regulators;
- Have independent regulators;
- Have coherency and consistency across all markets; and
- Rely on general law where possible.

"The regulator is not there simply to perpetuate its own existence," notes Ms Lambert. "Regulators should only be active where there is a good reason." She believes that heavy-handed regulation, far from oiling the wheels of the market, can wreck it. The view is shared by many in the industry. For many years BT has been arguing for more of the regulatory burden to be placed on the market. And increasingly so too are its competitors.

"Regulatory intervention generally tends to be a distortion of the market. It tries to mirror the market but cannot do so," notes Emma Gilthorpe, director of regulatory affairs at Cable & Wireless Communications.

"It's a question of deciding what constitutes a necessary level of intervention. And that's very difficult to do."

Ms Gilthorpe sees a continuing need for asymmetric regulation of dominant operators – special conditions for BT in local loop, for example. She sees the regulation of interconnection conditions as continuing to be necessary for competitiveness. Jo Upford, head of regulatory affairs at Energis, broadly agrees. "In general, the need for regulation is diminishing. It now needs to focus more on bottlenecks such as local access. It's important to understand who does have power in the various markets," she says.

Ms Upford believes that there should be more formal methods and more consistency in regulation.

David Harrington, managing director of the Telecommunications Managers' Association, the organisation which represents the interests of larger commercial users of telecoms, is not even that set against the market taking more of the strain. But is the UK market ready for it yet, he asks.

"We have had 15 years of competition and many people still do not have a significant choice of operator," says Mr Harrington. "There are pockets – such as the City of London – where BT is no longer dominant," he notes. "But overall BT still holds 85 per cent of the local loop. And we believe that more regulatory attention must be paid to some of the new players who are coming up.

"Now is not the time to raise expectations about reducing regulation. There is still going to be the need for detailed and stringent regulation for some time. The alternative will be predatory pricing and unfair practices," says Mr Harrington.

"ISDN 2 prices are still higher than the rest of Europe. And across Europe the prices of leased lines are much higher than in the US," he says. He would also like to see Oftel get more involved in influencing pan-European pricing.

So regulation as we know it is not likely to disappear. But it will change a bit. It appears to be too important to just leave it to itself.

The author is a freelance journalist specialising in telecommunications

UK: leading operators
1998 market revenue

Company	Holdings	% held	£m	€m
BT	UK fixed-line ops**	100.0	11,358	16,483
	Cellnet**	60.0		
100% Public float			11,358	16,483
C&WC	UK fixed-line ops**	100.0	2,229	3,235
53% Cable & Wireless			1,181	1,714
Vodafone	UK operations**	100.0	1,871	2,715
Orange	UK operations	100.0	970	1,408
45% Hutchison Telecom			437	634
Securicor	Cellnet**	40.0	480	697
Cable & Wireless	One2One**	50.0	350	508
MediaOne	One2One**	50.0	350	508
TeleWest	Fixed-line operations**	100.0	262	380
Energis	Energis*	100.0	221	321
COLT Telecom	UK operations	100.0	134	194

Only nationally-generated fixed-line and mobile telecom revenues are included
Excludes international alliances
* Estimated revenues
** Revenues for 12 months to Sep 30 1998
Sources: ARC Associates; ARCchart; Reuters

FRANCE by David Owen in Paris

Fixed-line tariffs fall again as era of innovation opens

'Free' mobile phone calls for users prepared to have their conversations interrupted by advertisements are planned by one of France Telecom's domestic competitors

Fixed-line call charges have started to fall again for most French household consumers.

France Telecom, the former monopoly operator that is still the dominant force in the FFr170bn French telecommunications market, announced in February that it was cutting the price of international calls by 10 per cent on average from March 1, with rates for long-distance national calls dropping by 12 per cent.

Cegetel, whose biggest shareholder is the Vivendi utilities and media conglomerate, soon followed suit, announcing that tariffs charged for national and international calls on its "7" fixed line service would fall by a similar amount from the same date.

Cegetel also announced the abolition of the FFr10 a month subscription charge levied on "7" customers since the service made its debut in February 1998.

France Telecom's monthly subscription charges rose by FFr5-FFr10 a month as the company rebalanced income from calls and line rental. This rise is significant because it brings subscription prices more or less in line with the real cost of installing and maintaining a line. "With the measures of March 1999, the rebalancing process will be essentially complete," the company said.

France Telecom's growing number of domestic competitors should, meanwhile, benefit from a knock-on effect of the changes, because the contribution they are required to make to the cost of providing a universal telephone service in France is falling substantially.

France Telecom's competitors have in any case been benefiting from lower interconnection charges with the former monopoly operator's network since the start of the year. Rates were cut at this time by an average 14 per cent in a move that Jean-Michel Hubert, president of the Autorité de Régulation des Télécommunications (ART), the French telecoms watchdog, said would "facilitate and intensify competition".

Since liberalisation of European Union telecoms markets in January last year, France Telecom has retained the lion's share of its domestic market, in spite of leaving its fixed-line call rates largely unchanged throughout 1998.

The company had chosen to pre-empt full liberalisation by reducing its fixed-line charges three times in 1996-97, resulting in steep cuts in international and national long-distance call rates over this period.

Many business users were able to secure further reductions last year. Olivier Porte, telecoms representative for the Club Informatique des Grandes Entreprises Françaises (Cigref), a body representing the private-sector companies with the 100 biggest information technology budgets in France, recently estimated that members secured up to 15 per cent of additional discounts for fixed-line calls.

An indication of future developments will take place in France in April when Cegetel plans to launch a so-called "two-in-one" package, giving customers the right to make eight, 12 or 16 hours of fixed-line or mobile calls for a fixed price. Such offers appear set to hasten the day when the distinction between fixed and mobile telephony becomes obsolete. To make use of the "two-in-one" offer, customers will have to be subscribers to both Cegetel's "7" fixed-line and SFR mobile service.

Another innovation that may soon see the light of day in France is the "free" mobile phone call for users prepared to have their conversations interrupted by advertisements.

Bouygues Telecom, France's third mobile operator, has signed a letter of intent with GratisTel International of Sweden, the company behind Europe's first advertising-sponsored mobile telephone service. While emphasising that the project was at planning stage, the French company recently said it would probably test market the service in spring or early summer.

It said the idea was to give its approximately 180,000 pre-paid Nomad clients, many of whom are relatively young, the option of some "free" calls interspersed with advertisements in a business model that has similarities with that generally used on the Internet.

It said customers who opted to take the service would get 30 minutes of free calls with about four minutes of advertisements. These would come in 10-second bursts every two minutes.

It said Nomad users paid FFr145 for about 1¼ hours of communications. The idea would be for those opting to take the new service to be equipped with a mechanism for indicating whether they wanted each successive call to be debited to their pre-paid 75 minutes or "free" 30-minute package.

What may turn out to be the most important announcement of all in recent weeks for the French telecoms market, however, was the government's decision to ease restrictions on the use of encryption technology. Combined with a call by Lionel Jospin, the prime minister, for lower Internet access costs, the move paves the way for electronic commerce to take off in France.

The previous regulatory framework was widely blamed for distrust of electronic commerce among consumers. With the move to ease regulation, experts are confident that "total safety" can be guaranteed for the electronic transmission of sensitive information such as credit card numbers.

France: leading operators
1998 market revenue

Company	Holdings	% held	FFr m	€m
France Telecom	French t'com operations	100.0	146,670	22,353
62% French government			90,935	13,858
33% Public float			48,401	7,376
3% Staff			4,400	671
2% Deutsche Telekom			2,933	447
Vivendi	Cegetel	44.0	7,304	1,113
BT	Cegetel	26.0	4,316	658
SBC	Cegetel	15.0	2,490	379
Mannesmann	Cegetel	15.0	2,490	379
Vodafone	SFR	20.0	2,400	366
Bouygues	Bouygues Telecom	32.7	1,276	195
Cable & Wireless	Bouygues Telecom	20.0	780	119
Veba	Bouygues Telecom	17.5	683	104
JC Decaux	Bouygues Telecom	11.5	448	68
Telecom Italia	Bouygues Telecom	10.7	416	64
Omnicom	Omnicom	100.0	231	35
KPN	Siris	33.0	142	22
Swisscom	Siris	33.0	142	22
Telia	Siris	33.0	142	22

Only nationally-generated fixed-line and mobile telecom revenues are included
Excludes international alliances
Sources: ARC Associates; ARCchart; Reuters

SPAIN by Tom Burns in Madrid

Telefónica fights its corner in newly liberalised sector

The government has so far ignored appeals from the former monopoly operator for a re-balanced tariff structure. Meanwhile competition is set to increase remorselessly

When Spain liberalised its telecommunications market at the end of last year, falling into step with the main European Union members who had done so at the start of 1998, three developments gave a good idea of what might be expected to occur in the domestic industry during the coming months. Together, the three suggested shake-ups ahead.

Deregulation day on December 1 was marked by the debut of Uni2, a third fixed-line carrier controlled by France Telecom; by applications for licences from more than 20 providers of niche telephony services; and by the launch of a legal suit by Telefónica, the former monopoly operator, alleging discriminatory practices on the part of the government.

At the very least, the developments indicated the attraction of the Spanish market for new entrants and the determination of the dominant national carrier, which was fully privatised early in 1997, to keep them at bay. Basic assumptions at Telefónica are that fixed lines will increase from 17.4m last year to 18.8m next year and that there will be 13.4m mobile users in 2000, nearly double the 1998 total.

Uni2 had obtained its licence only six months earlier – the last awarded by the government in the run-up to formal deregulation – and it plans to gain a 7.5 per cent share of the domestic telephony business by 2008. This target could be reached a lot earlier because at the end of its first month of operations the France Telecom unit was well ahead of its forecasts with 100,000 lines and 80,000 clients under its belt.

The new entrant might well follow the same track as Retevisión which became Telefónica's first fixed line competitor in January 1998 when it started providing long-distance calls. Retevisión, which is owned by a Telecom Italia-led consortium, was operating 1.5m lines for 1m clients – some 10 per cent of the international caller market – by year's end.

Penetration by Retevisión has been remarkable in Catalonia where it has taken a 14 per cent share of the market and in the Basque Country where Euskaltel, the carrier's local partner, claims that within 12 months it has built up a client base of 164,000 and a network of 243,000 lines, more than 25 per cent of the total in the Basque area.

Spain: leading operators
1998 market revenue

Company	Holdings	% held	Pta bn	€m
Telefonica	Spanish operations*	100.0	1,877	11,281
100% Public float			1,877	11,281
AirTouch	Airtel	21.7	43	261
BT	Airtel	17.8	36	214
BCH	Airtel	14.1	30	182
	Retevision	7.0		
Endesa	Airtel	8.1	25	150
	Retevision	29.0		
Union Fenosa	Airtel	8.1	20	119
	Retevision	12.1		
Banco Santander	Airtel	5.5	11	66
Telecom Italia	Retevision	29.0	9	52

Only nationally-generated fixed-line and mobile telecom revenues are included
Excludes international alliances
Sources: ARC Associates; ABCchart; Reuters
* Estimated revenues

Ms Ana Birulés, Retevisión's chief executive, says the carrier has "set several records" in its first year of business and that the company could break even as early as 2001.

At the beginning of this year it launched a mobile service that will compete in the rapidly growing cellular sector with Telefónica and with Airtel, an operator backed by British Telecommunications and AirTouch that has gained about 30 per cent of the mobile market in barely two years.

Javier de la Pinta, Telefónica's chief executive for regulatory affairs, says Retevisión's results are "unheard of" for an operator that has just started up. "Mercury in the UK took roughly four years to achieve the business quota that Retevisión has gained in one," he says.

This aggrieved sentiment reflects Telefónica's belief that it has drawn the short straw in the newly liberalised telecoms sector. With a powerful telecoms franchise in Latin America and a still dominant position in Spain's mobile market, Telefónica is hugely profitable – it is forecast to post a 15 per cent compound net income growth between 1998-2001 – but it nevertheless considers the domestic competition issue sufficiently serious to merit an official complaint to the European Union's competition authorities.

Telefónica says it has been severely penalised by the government's failure to re-balance telephone tariffs prior to the liberalisation of the telecoms industry. This omission, which allegedly breaches EU rulings that tariff structures should be overhauled in advance of deregulation, has now severely exposed the carrier to competition from newcomers who are able to aggressively price their international call services.

The imbalance stems from the previous highly regulated system when Telefónica, as the monopoly provider of telephony services, was bound by the government to operate low-cost local calls and to maintain cheap line rental fees. Potential losses incurred by such uneconomic pricing was comfortably offset by the high charges that Telefónica was able to levy on long-distance traffic.

In 1997, the year before the industry's full deregulation, local calls accounted for 66 per cent of Telefónica's line usage in Spain but only 10 per cent of its revenues, while long-distance and international calls, by contrast, represented 24 per cent of Telefónica's Spanish traffic and about 42.5 per cent of its earnings.

The carrier's problem is that while it continues to exclusively provide local services, new entrants are now eating away the long-distance segment which had allowed it in the past to subsidise the cheap local calls. Telefónica can expect further erosion of its long-distance market share when BT launches a fixed-line telephony service in Spain before the summer.

To add to insult to injury, the government, in its liberalising zeal, has set interconnection fees – the price that new entrants have to pay for using Telefónica's lines – at up to 30 per cent below the rates proposed by Telefónica albeit within the range recommended by the EU.

The government has, so far, been deaf to Telefónica's appeals for a re-balanced tariff structure.

In the meantime, competition will increase remorselessly thanks to the arrival in Spain of integrated cable operators. Cableuropa, a US-Spanish consortium that began to deliver services last year, expects to be offering services to 800,000 households, or 2.5m people, by the end of this year.

PROFILE
RSLCOM

From payphone warrior to fully-fledged carrier

The payphone war of last summer is now just a memory for Alejandro Rivas-Micoud, chief executive of RSLCom, one of the upstart phone companies hoping to carve a slice out of Spain's newly liberalised telephone market.

Millions of holidaymakers visit Spain each summer and RSLCom spotted the potential of offering calling cards that allowed visitors to make international calls at cheaper rates than Telefonica, Spain's former monopoly operator. "It's a completely virgin market," says Mr Rivas-Micoud.

Telefonica, however, woke up to the scheme and last August it blocked access to RSLCom's freephone number from payphones in airports and other locations frequented by visitors. RSLCom complained to Spain's new watchdog, the *Comision del Mercado de Telecomunicaciones* (CMT), which found in its favour and obliged Telefonica to let RSLCom customers use the service from any call box.

Buoyed by this victory, Mr Rivas-Micoud has embarked on a much grander project and has just been awarded a national RB1S licence that turns RSLCom into a fully-fledged carrier. It plans to offer long-distance calls nationwide from May. RSLCom could have applied for a simple reseller licence, but this has the drawback that customers must key in an access code before each call. "With a B1 licence, customers can preselect us as their carrier and that is a key competitive difference."

Last December, Spain's telecoms market was completely liberalised and at least 24 would-be carriers applied for licences. Analysts predict Telefonica could lose as much as 22 per cent of its long-distance market to new competitors over the next three years.

The company is concentrating on small and *medium-sized* businesses

To curb the chaos that unbridled competition has brought to some other liberalised European countries, the CMT requires companies that simply resell capacity to pay more to interconnect to Telefonica's network. Mr Rivas-Micoud likes the CMT's regulatory model. "It effectively puts a floor under how low prices can go."

Holders of a B1 licence pay lower interconnect rates but must carry 40 per cent of their traffic over their own infrastructure within two years. This requirement might seem a tough challenge for a company that currently owns just four telephone switches, in Madrid, Barcelona, Marbella and Valencia. But Mr Rivas-Micoud is not worried and has struck an alliance with a local partner to expand its network to 25 nodes covering the country.

He has also read the small print of the B1 licence and discovered that licensees can meet the infrastructure requirements by renting cables from others, providing the lease runs for five years or more – so RSLCom will not be laying its own cables.

RSLCom is a new name in Spain but its US parent, also called RSLCom, has made its presence felt in other newly liberalised markets of Europe. The company was founded in 1994 by Ronald Steve Lauder, who also runs the Estee Lauder cosmetics chain, and it now carries voice traffic in and between 14 European countries using it own pan-European network.

The Spanish subsidiary started in December 1997 and while the Spanish market was only fully liberalised in December 1998, 11 months later than most other European Union markets, Mr Rivas-Micoud says the delay has been beneficial because it allowed Spain's watchdog to learn from the experiences of other newly liberalised markets.

"The CMT is very professional and Spain is going to be a much better market than France or Italy, for example," he says. RSLCom currently has 4,000 customers in Spain and hopes to reach 25,000 by the end of 1998.

While most competitors aim to woo Spain's large companies, RSLCom is concentrating on small and medium-sized businesses. "We figure that a lot of people will be going after the large companies and there is going to be a lot of blood spilt ," says Mr Rivas-Micoud.

Because of their smaller size, RSLCom cannot dedicate much time to each potential customer. It has therefore developed software that quickly scans in a potential customer's phone bill and produces an illustration of the potential cost savings that could be made by switching to RSLCom. The discounts average around 15 per cent.

"The decline in price is not going to be dramatic but we also offer a state-of-the-art billing system and value-added services such as Virtual PBX," says Mr Rivas-Micoud. The Virtual PBX service allows companies located in the same building to share the features of a PBX system.

Calling cards will continue to feature strongly in RSLCom's product range and effective distribution is key in this market. Mr Rivas-Micoud is talking to hotel chains about incorporating a calling card on the back of the magnetic swipe card used to open hotel rooms.

Another possibility is selling Internet calling cards to Spain's immigrant communities. Calling out-of-the-way countries such as Columbia or the Dominican Republic over conventional networks is prohibitively expensive for these people, says Mr Rivas-Micoud. By routing such calls over the Internet – RSLCom owns the Delta Three Internet telephony network – the costs fall dramatically, although there is a noticeable drop in quality.

Mr Rivas-Micoud has plenty more ideas up his sleeve and while RSLCom's initial strategy concentrates on cheaper phone calls, he is keen to transform the company into a full-service operator. "We are trying to anticipate when Spain's market will no longer be price-driven and become much more service-driven," he says.

Geoff Nairn

ITALY by Paul Betts in Milan

'Mother of all takeovers' reflects powerful changes

Europe's biggest post-war takeover battle, for Telecom Italia, illustrates the electrifying changes under way in Italy's telecoms market and in the country's capitalistic structure

Telecom Italia, the world's 11th-largest telecommunications group, has undergone *two years of extraordinary* change and turbulence.

The group was at the centre of the Italian government's biggest and most ambitious state sell-off in October 1997 which quickly *became known as* "the mother of all privatisations".

As a newly-privatised public company, with more than 1.5m shareholders and a weak nucleus of core shareholders accounting for barely 7 per cent of its capital, it underwent an *extremely painful* transition from a monopolistic state *industrial monolith to* an open market company.

Its chairman changed three times in 12 months and its top management has been in a state of intense turmoil.

And now the privatised group with the highest stock market capitalisation of any company in Italy is the target of what has inevitably also been called "the mother of all takeovers".

Olivetti, the much smaller *information* technology and telecommunications group, launched *at the end of* February Europe's biggest post-war hostile takeover bid involving a highly leveraged *offer totalling* L102,000bn – or €53bn – for its giant Italian rival.

Whether Olivetti's audacious bid ultimately succeeds or fails – the takeover battle is likely to be a prolonged war of attrition – the hostile takeover attempt reflects the electrifying changes taking place not only in Italy's telecoms market but in the country's entire capitalistic structure.

"Italian capitalism will never be the same," said a Milan investment banker. "We are now in the throes of a *transformation* of our entire system forced upon us by *globalisation and Italy's* membership of the new single European currency," he added.

Franco Bernabe, Telecom Italia's new chairman, could hardly have had a more dramatic baptism of fire.

The highly respected former chairman of Eni – the oil and gas group which he *successfully* privatised and turned into one of the most *profitable* oil majors after sweeping restructuring and *refocusing – was appointed* Telecom Italia's new chief executive at the end of November.

He replaced Gian Mario Rossignolo, the telecoms company's controversial executive chairman, whose 10-month term had exacerbated the management and strategic turmoil and confusion that *had* been plaguing the company ever since its privatisation.

> **Telecom Italia suddenly found itself facing its biggest corporate crisis in decades**

Mr Bernabe, a proven "crisis manager", set to work to restore morale, refocus the company and devise a longer term strategic business plan for the company.

His appointment was well received by the investment community. Telecom Italia shares recovered.

His first immediate task was to negotiate the sale of an 80 per cent controlling stake in Telecom Italia's *Stream multimedia and digital* pay-television subsidiary to Rupert Murdoch.

Although the deal with the Australian media magnate eventually fell through – because of government opposition to Mr Murdoch *bidding* for the entire pay-TV rights for Italian Division One and Two soccer matches – it was a clear sign of Mr Bernabe's intentions of refocusing the privatised telecoms group around its core telecoms businesses and its function as a telecoms service *provider.*

Then, with the unexpected attack from Olivetti, Tele*com Italia suddenly* found itself facing its biggest corporate crisis in decades.

Mr Bernabe claimed it was in some respects a fortunate event.

"I have seen many rotten companies in my day but Telecom Italia is not one of them. It has lots of problems but is solid and cash rich," he explained.

The takeover bid has now helped *to mobilise the former* monopoly and given Mr Bernabe an opportunity to galvanise the sprawling group into a much-needed restructuring.

The company had just been through a privatisation process without leadership. It was having to adapt to a restructuring of the telecoms industry in Italy without leadership. And it had to address the challenge of the opening of the Italian telecoms market without leader*ship.*

New competitors were beginning to make in-roads *in the* once closed *Italian* telecoms market.

Olivetti's Omnitel mobile phone venture and its Infostrada fixed line subsidiary have been gathering momentum rapidly.

The week after Olivetti announced its hostile bid, a new mobile and fixed-line operator launched its services in Italy.

A partnership between *Enel, the Italian state* electricity utility, Deutsche Telekom and *France Telecom,* the new venture called Wind, offered for the first time combined mobile and fixed line services.

Italy has taken a lead in *Europe in developing* mobile services.

Mr Bernabe said *one of the* jewels in Telecom Italia was its 60 per cent-owned Telecom Italia Mobile cellular subsidiary which had pioneered the mass market for mobile telephones and in many ways provided *Olivetti* with the opportunity to develop its rival Omnitel mobile services.

To defend himself from the takeover attack and a bid considered at the current *offer price* of €10 a share in cash, bonds and equity low, Mr Bernabe *is seeking* to woo shareholders by trying to convince *them that his* industrial longer term plan for the company will provide value.

His plan involves a series of steps.

The first, and perhaps most significant, is reorganising the company to focus on customer services, strengthening its reach in the mass market by combining Telecom Italia and Tele*com Italia Mobile. The strategy* would be to adopt the mobile subsidiary's successful mass marketing techniques to combined mobile and fixed line services.

Mr Bernabe also wants the *group* to focus more on Italy's small and medium sized companies. He wants to rationalise the company's heavy cost structure and *myriad* corporate entities throughout the country. There would also be a *rationalisation* of the company's portfolio of international interests and the shedding of non-core assets such as the *company's* large property portfolio.

Finally, Mr Bernabe intends to use his extensive international connections to negotiate industrial alliances with other international telecoms companies.

The strategy, however, hinges on one all-important factor: that Mr Bernabe wins the battle against Olivetti.

Should he prevail against his *smaller predater,* he is expected to find himself in a strong position to accelerate the reshaping of Telecom Italia and in so doing the restructuring of the Italian telecoms industry.

If he is defeated, then it will be the Olivetti team who will find themselves in the driving seat attempting to repeat with Telecom Italia their success in turning around *Olivetti which faced* near-collapse barely two years ago.

Italy: leading operators
1998 market revenue

Company	Holdings	% held	L bn	€m
Telecom Italia	Italian fixed-line*	100.0	31,200	16,118
3.4% Italian government			1,061	548
96.6% Public float			30,139	15,567
TIM	TIM*	100.0	23,782	12,283
60% Telecom Italia			14,269	7,370
Olivetti	Omnitel	25.2	1,260	651
	Infostrada	50.0		
Mannesmann	Omnitel	25.2	1,260	651
	Infostrada	50.0		
Bell Atlantic	Omnitel	19.7	881	455
Airtouch	Omnitel	17.8	796	411
ENI	Albacom*	35.0	70	36
BT	Albacom*	22.8	46	24
BNL	Albacom*	22.8	46	24
Mediaset	Albacom*	19.5	39	20

Only nationally-generated fixed-line and mobile telecom revenues are included
Excludes international alliances
• Estimated revenues
Source: [illegible]

EASTERN EUROPE by Anthony Robinson in Moscow

Poland and Russia lead the field with sell-offs

Privatisation is the name of the game throughout the region – but all other deals are dwarfed by plans for the two biggest and most populous operators in the region

By far the biggest telecoms developments in eastern Europe in the coming months will be the privatisation of a further 25 to 35 per cent of Telekomunikacja Polska (TPSA) of Poland and a renewed effort by the cash-strapped Russian government to sell a second 25 per cent tranche of Svyazinvest, the government-controlled telecoms holding company.

But there is also plenty of action elsewhere in the region, especially in the Baltic and Black Sea countries. This follows last year's highly successful privatisation of Hungary's Matav and the earlier sale of a strategic stake in SPT, the Czech telecoms operator, which is currently surrounded by allegations of bribery and corruption.

Telia of Sweden and Finland's Sonera are jointly expanding internationally in their immediate neighbourhood by buying strategic stakes in the telecoms companies of all three former Soviet Baltic states. The latest to come on the block is Eesti Telekom for which the Estonian government has set an indicative price of about $200m for the 36m shares on offer. This would give the buyers 49 per cent of the wholly state-owned telecoms holding company.

Sonera and Telia, which already jointly own 49 per cent of Mobiltelefon, Eesti Telekom's profitable and fast-growing cellular operator, and a similar stake in its fixed-line subsidiary, Eesti Telefon, are expected to lead the bidding. Last year, the two Nordic operators paid $510m for a 60 per cent stake in Lithuania's Lietuvos Telekomas, while Sonera bought a 31 per cent stake in Latvia's Lattelekom; this included a 23 per cent stake in Latvia's main mobile operator.

Consumers in all the Baltic states have developed a passion for mobile telephones, but nowhere more than in Estonia where Nomura equity research reports that cellular penetration reached 16 per cent at the end of 1998, by far the highest in eastern europe and still growing rapidly.

Meanwhile, half way across the continent, Romania and Bulgaria are busy selling off strategic stakes in their national telecoms companies, driven by the same government need for cash and practical need for foreign know-how and investment which is pushing forward the privatisation process throughout eastern Europe. But all these deals are relatively small compared to those involving the two biggest and most populous operators in the region, in Russia and Poland.

For political reasons, the Polish government decided that the first stage in selling off its "national jewel" telecoms monopoly, TPSA, should be an IPO through the Warsaw Stock Exchange (WSE). The aim was to head off trade union and nationalist opposition by giving individual Poles and Polish institutions privileged access to most of the 15 per cent of the state's shares offered in the first stage.

Last autumn's offer, on which TPSA was advised by UK bank Schroders, was heavily over-subscribed. The government received more than $800m for its 194m shares. Prices climbed rapidly on the WSE from the initial 15.2 zloties ($4.4) a share to more than 26 zloties by early February. This boosted TPSA's market capitalisation to nearly $11bn, more than 40 per cent of the WSE's total market capitalisation of about $25bn.


Telephone booths outside the Warsaw Stock Exchange: the TPSA offer was heavily over-subscribed AP

Prior to the TPSA privatisation, the WSE was dominated by Polish banks. Now, as in Budapest and Prague, telecoms are top of the heap in market capitalisation and popularity among investors.

Last month, the Polish government moved on to the second stage of TPSA's privatisation: the search for a strategic investor. Whoever wins faces a politically and technically challenging task. The unwieldly state-owned company, like all its counterparts in the region, retains strong elements of the secretive, bureaucratic culture inherited from communist days when the state telecoms companies were run by secret policemen and satisfying ordinary customers hardly figured on anybody's priority list. The search is now under way for an adviser to find a strategic investor prepared both to pay a substantial sum for a 25-35 per cent stake and invest heavily in modernising and expanding the telephone system of central Europe's most populous and fastest growing economy.

The 39m population, with a growing concentration in the capital, Warsaw, and other fast-growing regional centres in western and northern Poland, and strong economic growth since 1992, are the main lures.

Longer term, however, even Poland is relatively small compared to potential telecoms growth in Russia, especially west of the Urals, where more than 80 per cent of its 150m people live. Many live in big cities such as Moscow, where an estimated 70-80 per cent of all traffic is generated, St Petersburg, and the string of industrial towns along the Volga river.

On average, Russia still has only 21.6 lines per 100 urban inhabitants, reflecting the low priority of telecoms investment in Soviet times. But satellite-based providers, such as Stan Cramton of ICO global communications, argue that Russia's relative backwardness and vast empty spaces make it the ideal candidate for satellite-based systems which will enable it to leapfrog into the telecoms future.

Similar thinking inspires ICO's main global rival, the US-led Iridium network in which Russian space company Khrunichev is a shareholder.

While the intention to modernise is strong, the money is not, especially after the August financial crash and rouble devaluation. Declining real incomes also reinforce politically-backed resistance to the revenue-raising tariff increases required to fund the massive investment required.

PROFILE
SVYAZINVEST

Currency and political risks pose problems

Political and financial pressures make privatisation of Svyazinvest, the Russian state telecoms holding company, particularly difficult.

The government desperately needs the $600m it hopes privatisation will bring in but resistance to "foreign meddling" is strong both within the industry and among the powerful regional bosses who control the operating companies.

Thus far, Svyazinvest has been unable to exert effective control over the 89 operating companies in which the state has a theoretical controlling share stake. This is particularly true in Moscow, where the Moscow city telephone company is closely controlled by Yuri Luzhkov, the ambitious mayor.

The first stage of Svyazinvest privatisation in 1997 was purely financial. The winning Mustcom consortium, which includes George Soros, the financier, and the Interos financial group headed by "oligarch" Vladimir Potanin, paid $1.87bn for a 25 per cent plus one share holding.

It was hailed as one of the most transparent privatisation deals to date but has given little to investors and had little discernible effect on how Svyazinvest is run.

The government is now preparing to sell a further 25 per cent, less two shares, to a strategic investor. This would still leave the state with a controlling 50 per cent, plus one share. But it failed to attract a bidder last summer, despite throwing in the offer of a national GSM mobile licence as a sweetener.

It hoped to raise as much as $1.6bn from the sale. Now expectations are lower. But Lyudmilla Kan, telecoms analyst for Moscow-based broker Troika Dialog, says the government still has to decide whether to go ahead now or first try to merge Svyazinvest with Rostelecom, also a state-owned telecoms operator, following the Brazilian example. A merger with Rostelecom, the national long-distance operator which owns the backbone infrastructure and acts as a telecoms wholesaler, would make Svyazinvest more attractive, analysts believe.

Even so, the perceived Russian currency and political risks pose a big question over telecoms privatisation in the near future. Potential strategic investors want to know whether they will be able to overcome the resistance of regional politicians for whom low telephone and utility tariffs are powerful political levers.

Without the power to raise tariffs and restructure bureaucratic systems, the concept of "strategic investor" has little real meaning. Persuading potential investors that they will be able to control their investments is one of the main tasks facing Yevgeni Primakov, the prime minister.

The former spy-master has clearly taken on board the need to make conditions more attractive for foreign investors in general, pushing through, for example, vital production-sharing agreement (PSA) legislation to entice more investment into the energy sector and courting foreign investors generally into what he calls the "real economy."

At the same time, however, he is determined to impose a tighter grip on the still large remaining state shareholders in key sectors of the economy, including oil and telecoms.

A senior adviser told the FT: "Until now, state representatives have tended to be treated like small boys; to be kept in the corner of the room even at board meetings of big companies where the state is a major or even majority shareholder. That has got to stop and Mr Primakov is insisting that the state keeps a much closer control over its remaining holdings and makes its voice known when decisions have to be made."

This changed atmosphere at the top is likely to be reflected at the forthcoming Svyazinvest board meeting called for April 27. On the agenda is a replacement for Nail Ismailov who is perceived within the industry as having been a relatively ineffective general manager, unable to restructure the holding as an effective, market-orientated organisation. It is up to the state property ministry, which owns the state shares, to propose a candidate who is expected to be a more forceful defender of the state's perceived interests.

Meanwhile, Svyazinvest management's hopes of retaining the government's earlier willingness to lure investors by issuing Svyazinvest with a national GSM-900 licence have been dashed. On February 12, Mr Primakov shelved indefinitely a decision on granting the licence.

This was not unexpected because the original offer was conditional on a successful conclusion to the original privatisation tender – and this was derailed by the crash last August when the rouble collapsed and the government defaulted on its domestic debt and froze foreign debt payments for 90 days.

The decision to withdraw the GSM sweetener and appoint a new general manager for Svyazinvest indicates that, as with the government's plans to merge three state-controlled oil companies into one larger and more powerful state oil company, a government decision to opt for a Brazilian-style tie up between Svyazinvest and Rostelecom now looks more likely than another attempt to sell off Svyazinvest as it is, particularly in the current investment climate.

Anthony Robinson

GERMANY by Frederick Stüdemann in Berlin

Changing times and fortunes

Recent decisions by the regulator could herald significant changes to the list of winners and losers in the fast-changing German telecoms market

At first glance it appears easy to identify the winners *and losers of the* liberalisation of the German telecommunications market at the start of 1998.

Consumers, especially those who make long-distance or international calls, have benefited from a price war which has cut the costs of some calls by as much as 70 per cent. New entrants to the market have profited from a regulatory *regime which set low* charges for access to the fixed network owned by Deutsche Telekom, the partly-privatised former monopolist.

The telecoms sector as a whole has been boosted by liberalisation. According to the federal telecommunications and postal regulatory *authority, competition contributed to a 6.5 per cent* increase in turnover in the sector in 1998, to DM100bn. Looking to the future, the regulator believes telecoms will be a significant creator of jobs.

On the losing side stands Deutsche Telekom which has lost as much as 30 per cent of its share of the peak-time long-distance segment of the market.

Expressed in financial terms, fierce competition by the some 50 companies who have entered the market since liberalisation cost *Deutsche Telekom about* DM2bn in lost sales last year.

A significant contributor to this loss of business was the regulatory authority's decision to set a 2.7 pfennigs per minute "inter-connec*tion" fee* which Deutsche Telekom can charge for use of its networks for long-distance and international calls.

The fee is low enough for companies to enter the market without making consid*erable capital investment in* networks.

The result has been the strong growth of operators such as Mobilcom, a start-up which claims to have grabbed about 10 per cent of the long-distance market.

Germany: leading operators
1998 market revenue

Company	Holdings	% held	DM m	€m
Deutsche Telekom	German operations	100.0	60,593	30,981
47.5% German government			28,782	14,716
26% Public float			15,754	8,056
24.5% KfW Bank			14,845	7,590
2% France Telecom			1,212	620
Mannesmann	Mannesmann Mobilfunk	65.0	5,843	2,988
	Mannesmann Arcor*	61.0		
AirTouch	Mannesmann Mobilfunk	34.8	2,738	1,400
	Mannesmann Arcor*	11.0		
DaimlerChrysler	Debitel*	60.0	1,800	920
Mobilcom	Mobilcom	100.0	1,470	752
Metro	Debitel*	40.0	1,200	614
Veba	o tel o	40.0	604	309
	E Plus Mobilfunk	24.0		
RWE	o tel o	37.5	566	290
	E Plus Mobilfunk	22.5		
Deutsche Bahn	Mannesmann Arcor*	25.1	452	231
BellSouth	E Plus Mobilfunk	22.5	405	207
Vodafone	E Plus Mobilfunk	17.5	315	161
Esprit	Plusnet	100.0	200	102
Viag	Viag InterKom*	45.0	180	92
BT	Viag InterKom*	45.0	180	92
COLT Telecom	COLT Telecom GmbH	100.0	170	87
Telenor	Viag InterKom*	10.0	40	20

Only nationally-generated fixed-line and mobile telecom revenues are included. Excludes international alliances

Sources: ARC Associates; ARCchart; Reuters

* Estimated revenues

The company has no networks of it own. Instead, it lures customers on a "call-by-call" basis to dial a prefix before each individual telephone call.

The call itself goes across Deutsche Telekom networks and the billing and payment collection is also handled by Deutsche Telekom on behalf of Mobilcom.

Deutsche Telekom claims the inter-connection fee is *below cost and means that it* effectively subsidises its competitors.

The company has gone to court in an attempt to get the regulator's decision overturned, although it acknowledges that it cannot expect *any decision on the issue* soon.

But while the former monopolist still smarts from a set-back in the long-distance segment of the market, the company has received a boost from the regulator in the key area of the local call market.

In February, the authority ruled that Deutsche Telekom could charge DM25.40 a month to companies wishing *to access the so-called "last-*mile" of telephone lines leading into houses and business premises.

In addition to the monthly fee, the company can also make a one-off charge of up to DM337.17 for each tele*phone connection it surren*ders to a competitor.

The decision was greeted with dismay by Deutsche Telekom's competitors who claim the monthly fee is too high and will stifle competition.

Harald Stöber, chairman of Mannesmann Arcor, a joint venture between the industrial group Mannesmann and Deutsche Bahn, the federal railway company, said the regulator's decision would "protect Deutsche Telekom's monopoly position in the local network."

The competitors, who had pressed for a monthly fee of DM15-DM20, point out that Deutsche Telekom's monthly *line rental charge to custom*ers is DM21.39, or 18 per cent lower than the fee levied on competitors.

Without cross-subsidies it will be difficult to make money in local services, the competitors claim.

Industry observers see the decision on local call access as evidence of the changing political environment in Germany following the election last September of Gerhard Schröder's social democrat-led government.

Werner Müller, the economics minister, has given a sympathetic hearing to Deutsche Telekom's claims of unfair treatment at the hands of the regulator.

At the end of last year, the government, which still holds a majority stake in Deutsche Telekom, urged the company to withdraw its original application for a DM48 monthly fee for access to the local market because it was aware that the regulator would not approve such a high figure.

Deutsche Telekom later submitted a revised *offer to* DM37.30.

Further evidence of a change of attitude by the regulator came just before Christmas when Arne Börnsen, vice-president of the authority and a Social Democrat, said Deutsche Telekom could charge rivals for costs incurred by increased and "atypical" traffic on its networks.

Such greater consideration for infrastructure was underscored by Mr Börnsen when the local access fee was announced.

Brushing aside claims that the regulator's decision had been subject to political influence, he said it was intended to boost investment in infrastructure and shift the focus of competition away from the narrow concentration on the cost of a call towards the quality and provision of a variety of services, such as offering consumers packages including Internet access and mobile telephony.

Analysts say this will benefit the big telecoms companies who have made heavy investments in infrastructure, or have the resources to do so.

Until now, companies such as o.tel.o, a joint venture between the energy giants Veba and RWE, who concentrated on building up networks in the expectation of persuading consumers to switch over totally to their service were wrong-footed by more nimble operators such as Mobilcom who focused on marketing low-cost calls *across lines owned by oth*ers.

The result could be that over the coming year significant changes are made to the list of winners and losers in the fast-changing German telecoms market.

PROFILE
DEUTSCHE TELEKOM

Still reeling from the effects of liberalisation

There are no ramparts around Deutsche Telekom's sleek glass and steel headquarters building in Bonn. *But while the biggest* telecommunications company in continental Europe may not look like an organisation under siege it is certainly still reeling from blows brought on by the liberalisation of its domestic *market a year ago*.

Over the past 14 months, the former monopolist, in which the German government still holds a majority stake, has seen as much a third of its peak-time long-distance call business disappear into the hands of rivals.

Competition has sparked a price war which has forced Deutsche Telekom to slash the retail costs of its calls with a knock-on effect on earnings and revenues.

In 1998, net sales increased by only 1.5 per cent, to DM68.7bn, and the *company said some DM2bn* of sales had been "lost" by the introduction of price cuts.

Post-tax earnings rose by an apparently robust 27 per cent to DM4.2bn. But Deutsche Telekom said this *increase was largely due to* the halving of losses in deficit-ridden areas such as directory inquiry services, equipment sales and international investments.

Deutsche Telekom has also received a rough ride from the regulatory authorities, both in Germany and in Brussels. At home, the company is still smarting from the decision by the government-appointed regulator to set a relatively low "inter-connection" fee of 2.7 pfennigs per minute which rivals pay to use Deutsche Telekom's networks.

Meanwhile, in Brussels, the European Commission's long-standing opposition to Deutsche Telekom's ownership of Germany's biggest cable television network has prompted the company to seek buyers for what, until recently, was considered a core asset.

Brussels argued that ownership of both traditional wireline and cable networks hampers competition, particularly in the market for Internet access and *multi-media services but* also in telephony.

Deutsche Telekom is still in discussions with possible investors, including Deutsche Bank, for the network which has a book value of DM8bn.

Last year, Brussels also blocked Deutsche Telekom's planned joint venture with the media groups Bertelsmann and Kirch to establish a digital pay-TV business in Germany.

The outlook for this year looks mixed.

The price war in the long-distance market is likely *to continue and thus add* further pressure on Deutsche Telekom's earnings and sales. Analysts reckon that the current peak-time long-distance rate of 17-19 pfennigs could fall towards 10 pfennigs.

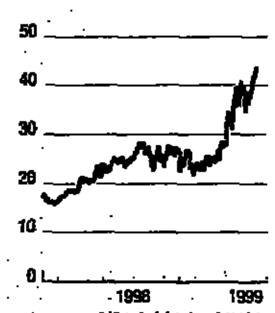
The company also faces the possibility of renewed problems with Brussels after competitors complained to the Commission that *Deutsche Telekom was* cross-subsidising its online service subsidiary, *T-Online*, with cheap dial-up rates.

But against all this, the company has received a significant boost in the local call market at home where the regulator set a relatively high access fee of DM25.40 *per month*.

This figure is 18 per cent higher than Deutsche Telekom's monthly line charge.

It will therefore make it very difficult for competitors to enter the key local call market, *important not just* because of its high volume of traditional telephone calls *but also for the growth of* demand for Internet access, without resorting to cross-subsidisation

Deutsche Telekom
Share price (€*)



* Historical data translated into euros using the locked-in rates of 31/12/98

Source: Datastream/ICV

or the capital-intensive option of building their own networks.

Separately, the regulator has also said that Deutsche Telekom can charge rivals for the costs of increased traffic along its networks, *although the company must* first prove the costs of increased business along its lines due to calls sold by competitors.

These two decisions by the regulator have been interpreted by competitors and analysts alike as evidence of a changing political environment in Germany.

The Social Democrat-led government, which took office last October, has proved more sympathetic than its centre-right predecessor to Deutsche Telekom claims that the *mechanics of liberalisation* has forced the company into the position of subsidising its competitors.

Some observers, such as Hans Beatzow, telecoms specialist at Gemini Consulting in Germany, see a link between political pressure and the government's plans to sell additional shares in Deutsche Telekom next year.

He says the government "has a considerable interest in maintaining high stock value." Some 74 per cent of the company's shares are held directly or indirectly by the state.

Deutsche Telekom also has the right to sell 286.3m shares by the end of this year.

Earlier this year, the company confirmed that it was likely to go ahead with the sale, which could raise up to €10.8bn, "in view of potential investment opportunities on the rapidly developing international telecommunications market."

This raising of a war-chest, which could also include the income from the sale of the cable network, has brought renewed speculation about imminent international acquisitions.

So far, Deutsche Telekom has noticeably remained on the sidelines during the latest round of merger and takeover activity in the telecoms sector.

But Ron Sommer, chief executive, has repeatedly said the company would pursue merger and acquisition opportunities if they were necessary for the company to realise its *ambition of becoming a* global force.

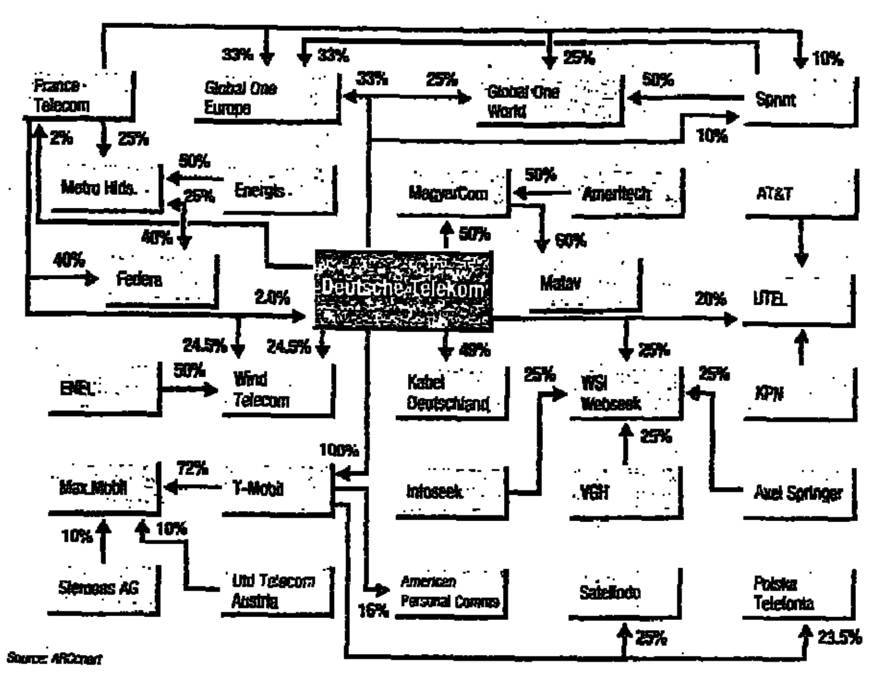
"I could imagine that they would do something in the US or Asia, so the possibilities currently being mooted in the market, such as [the American company] *Sprint, or Cable and* Wireless, have a plausible ring to them," said one Frankfurt-based telecoms analyst.

Deutsche Telekom already holds a 10 per cent stake in Sprint. The two companies are also, together with France Telecom, co-owners of Global One, a loss-making international telecoms services business.

Other observers believe the company may initially concentrate on markets closer to home in central and eastern Europe.

Whichever way it turns, Deutsche Telekom's apparent expansionary mood, along with the most recent regulatory decisions, has met with approval in the market where the company's shares have risen strongly.

Frederick Stüdemann



Source: ARCchart

Even in its package, this new chip from *National Semiconductor* is about the size of a flake of coarse ground pepper. As many as 50 of these tiny circuits are used in a single cellular phone, along with other electronic components AP

NEW PRODUCTS AND SERVICES compiled by Philip Sanders

The GSM industry worldwide - all on a single CD-Rom

Market intelligence on the GSM industry worldwide is available on a single CD-Rom launched by EMC, publishers of the *World Cellular Database*, based in Walton on Thames, England. Updated twice yearly, the World GSM Datapack contains country-by-country, operator-by-operator data about GSM networks across the world.

Topics covered in the GSM Datapack, for which comprehensive statistics are provided, include: network information for more than 600 planned and live GSM networks and concessions worldwide; quarterly historical subscriber data for some 300 GSM networks in 130 countries; five-year forecasts for GSM subscriber growth in 165 countries; list of GSM infrastructure suppliers worldwide; GSM network equity ownership details; and recent GSM market developments.

Datapack prices start at £3,500.

Extra e-mail-to-voice message services

JFax Communications, Los Angeles-based provider of Internet messaging services, announced new additions to its service which convert e-mail messages to voice messages which can then be replayed.

E-mail can also be forwarded to a fax machine as text or forwarded as voice messages to any e-mail address. They can then be replayed on any PC using JFax Audio software which is available free on the Internet.

Fax headers are read by the JFax service and the whole fax can then be forwarded *to the nearest fax* machine if required.

Voicemail can be forwarded to another telephone, such as an office number where a colleague can deal with an urgent request.

New line of GSM modem products

A new line of GSM modem products has been introduced by Simoco International, based in Cambridge, England, including a dual-band wireless modem which is capable of operating in two GSM frequency bands (900/1800 MHz). This enables applications to be developed for diverse requirements ranging from alarm systems and database management, vending machines and fleet control to home automation and remote diagnostics.

The dual-band modem is ideally suited to mixed system solutions, interfacing GSM with GPS (Global Positioning System) technology or with telemetry terminals, and incorporating into personal digital *assistants and laptop PCs*.

Applications can also include traffic control, surveillance, information services, data links to wireless payphones and PC-cards, in-vehicle navigation, building security *systems, remote road sign* updating, wireless network connection and access to the World Wide Web.

Simoco's portfolio now consists of analogue, digital Tetra (Terrestrial Trunked Radio) and GSM mobile communications equipment and services.

The Motorola v3688, launched by Orange, weighs only 83g and is Orange's smallest and lightest phone to date

Location system for GSM mobile phones

The Cursor, an accurate location system for GSM mobile phones is scheduled to be launched by Cambridge Positioning Systems (CPS) later this year, after an extensive commercial trial in the summer. CPS, based in Cambridge, England, recently signed a handset deal with Maxon, a leading global handset and telecoms equipment supplier.

The Cursor uses existing cellular network infrastructure to determine *the mobile phone's location*. When a user calls selected service providers such as vehicle roadside assistance and travel information services, Cursor simultaneously sends data pinpointing the user's location, accurate to 125m or better. In an example of roadside vehicle assistance, the service provider would use this data to locate the *caller accurately and ensure* assistance arrived promptly.

Orange launches mini from Motorola

Orange launched the *Motorola v3688, Orange's* smallest and lightest phone yet, with a dual-band capability enabling users to benefit from Orange's roaming agreements across Europe, Africa and much of Asia-Pacific.

The phone weighs 83g and is EFR (enhanced full rate) compatible so users can take advantage of the fixed-line call quality available on Orange. It features graphic menus and a high definition graphic display, and gives up *to two hours' talk time and* 2½ days standby time.

Equant unveils global IP products

New global services employing Internet Protocol-based technology were announced by Equant, a leading provider of seamless international data *network services to* multinational businesses. Among the new services were:

- iVAD (integrated voice and data) with off-net dialling integrates voice and data access across a single *line and enables calls to be* made off-net to anywhere in the world using Equant's global data network.
- High-speed PPP (point-to-point protocol) Dial-access service is being launched in more than 100 cities with speeds of 56 kilobits per second via public switched telephone networks, and 128kbs for users with ISDN (integrated *services digital network*) capability.

Worldwide web hosting services

Global One, international joint venture of Deutsche Telekom, France Telecom and Sprint, announced the addition of Global Web Hosting services to its range of IP solutions. The new service will be offered globally with the opening of *data centres in London*, Tokyo, Hong Kong and São Paulo, in the coming months. Data centres are already operating in Germany and the US.

Global Web Hosting allows businesses to rapidly build high-performance web sites to reach their current and prospective customers around the world. By outsourcing their web operations to Global One, customers can focus on their core business.

Bill Cheswick, an Internet security specialist for Bell Labs, the research wing of Lucent Technologies, describes the paths travelled by information on the Internet. The projection at left represents the paths that a single e-mail message may travel en route to its destination AP

Orange's new £11m call centre in Darlington, north-east England, is one of the most modern in Europe. Orange is Darlington's biggest private employer with more than 1,350 staff working in its national paging service and mobile phone customer services

Travel company Thomas Cook offers call centre services to other businesses from its Global Services centre in Peterborough, central England. The group can provide businesses and institutions with a 24-hour-a-day multi-lingual call centre service

CALL CENTRES by Priscilla Awde

Intelligent networks help telcos to expand services

Moving intelligence into telecoms networks has advantages for all operators and will enlarge the role of call centres, making them more accessible to more companies

Radical developments in call centre technology are moving functions and management control systems from enterprise level equipment (installed at customers' call centres), into telecoms networks.

Telcos are using Intelligent networks (IN), to expand their call centre services from supplying equipment to adding features such as enterprise-wide management systems plus operational functions. IN involves distributing computers throughout the telco network which, in call centre applications, gather data from equipment located at one or more sites. Information can be collated from 500 agents in 10 different centres. And unlike enterprise-based computers, IN creates a comprehensive and real time picture of what is happening in multiple sites.

"Using IN, we provide daily, weekly or monthly reports on actual calls, including those which ring engaged, for a group of centres. All the information is delivered via the Web. Management reports are on the Web daily and users simply log on to see network level reports," says Andy Speller, call centre consultant at Energis. "Managing peaks and troughs via the Web can be done in real time by looking up routeing data and changing traffic loads between centres."

Sophisticated computer telephony integration (CTI) with features such as call routeing algorithms, automated dialling and "screen popping" (where information relevant to a call appears on agents' screens as the phone rings), are becoming part of telecoms operators' services. With IN, call centre managers benefit from comprehensive and real time management systems and greater efficiency while companies save on the cost of routeing calls. All of which contributes to better customer service.

"Companies want enterprise resource management to provide value to customers – IN is a way of delivering it," says Richard Campbell, managing director of Template Software. "All interfaces between businesses and customers need to be integrated to provide a single communications interaction with customers."

Equipment located in centres only logs calls which arrive at the site, giving no hint of the numbers which do not get through. Managers therefore only have a partial view of overall efficiency. IN offers one central system giving managers real time, multi-site control, accurate call routeing and fast system re-configuration resulting in more efficient network use.

Calls are held in the network before being directed to the right agent, saving on incorrect routeing or unnecessary long-distance calls (forwarding calls to the right agent after they are delivered to centres means they have to be paid for twice). Interactive voice response (IVR) messages can be played in the network and calls queued until the right agent is free.

"There are huge cost savings for enterprises and operators. Incoming calls trigger the IN system so they do not have to be taken down to the call centre, thereby saving on trunk time and alleviating network congestion. There is no need for such clever mechanisms down in the enterprise," says Dave Thorley, solutions marketing manager at Nortel Networks which sells telecoms network solutions. "IN is especially useful in networked centres with incompatible switches from many vendors."

Julio Bran-Melendez: 'Some calls are worth millions'

Given the burgeoning growth in call centres and their role in handling increasingly vital and complex functions for organisations, IN will increase their value to business.

"Critical questions for each company are how much is each call worth and how much is lost if the call is lost?" says Julio Bran-Melendez, director of business division, Ericsson. "Some calls are worth millions, so handling them within a telco environment, where there is real time overall network and call management, makes sense.

"Worldwide, 70bn calls a year end in network-based call centres. Over half of new agent positions created globally will connect to intelligent networks and the trend is growing."

Moving intelligence into telecoms networks makes it possible to manage multiple sites as one "virtual" centre, independent of location. Agents can work anywhere via a standard Integrated Services Digital Network (ISDN) line and company experts can be integrated into call centre work wherever they are based. Taking call centres to the agent is important in an industry where qualified staff are becoming scarce and attrition rates are high.

IN has advantages for all operators and will enlarge the role of call centres, making them more accessible to more companies. Telcos will benefit from added revenues and less network congestion. Tim Bishop, product business manager at Siemens Communications, believes: "There is a sea change in the way call centres are being used – from transaction processing to routes, to knowledge and advice. There is a whole growth in skills-based routeing tools which track agents' expertise and profile callers' needs based on customer records."

Outsourcing call centres is becoming popular and telco-based services mean that smaller organisations can add centres. Ram Pemmaraju, solutions architect with Bellcore, says: "With IN functionality all in the network, companies do not have to keep up with technical changes – this is done by the telco. Small companies benefit because they could not otherwise afford to buy the software or hardware.

While IN services are still new to telcos, there is plenty of interest because they make call centres easier to manage."

Internet, intranet and e-mail functions are becoming part of call centres, both for access and for management systems. Rob Winder, product marketing manager, Genesys, says: "In future, any media will be a possible channel into a call centre. It could be digital television, IP voice, mobile connections or short messaging services. IP voice is a potential threat to IN and the capability exists to bring it into call centres and route it the same way as voice."

Customers can make contact by e-mail, intranets or extranets or via hyperlinks from the Web. Dave Drewry, business development manager, BT Syntegra, says: "The Internet allows a cost saving, self-service function. Customers can access centres via the Web, select 'call me back' functions and agents push screens back to them. Organisations get a more holistic view of customers and can push information to them via PCs, mobile phones or personal organisers."

In future, enterprise-based systems and IN will co-exist, some users favouring one over the other. "Companies whose core business is built around a call centre will always want to control their own technology and have equipment on site," says Jim de Placido, business development director with Royalblue. "Overall, there will be more co-operation between enterprise solutions and telcos to provide more intelligent solutions."

MARKET REPORT: PRE-PAID MOBILE by Christopher Price

Market is revitalised with lure of pre-paid packages

Sales have taken off with the number of UK mobile users rising from 8.2m to 13m in 1998. In Italy, sales have soared from 6.4m to 20.3m in the past three years

In the world of mobile phones, with its multiplicity of operators and confusing tariff schedules, the pre-paid package is emerging as king.

No monthly rental charges, no credit checks and no demanding contracts have proved hugely popular with a general public which is still somewhat intimidated by the prospect of choosing from the wide array of models and contracts.

In addition, the pre-boxed sets have opened up new channels to market, such as *supermarkets, which have* proved more convenient for potential customers.

The result has been a big uplift to an already buoyant market.

Take the UK market for example. The product's penetration during 1998 was such that a market where growth had been slowing down was revitalised.

According to Continental Research, *the telecoms consultancy*, the UK mobile market grew by 77 per cent in 1995, dropping to 26 per *cent in 1996 and falling further* still to 21.4 per cent the *year after*.

However, last year, annual growth jumped to 57 per cent as pre-paid combined with tariff declines to stimulate consumer demand: the number of UK mobile users rose from 8.2m to 13m in 1998.

The effect on the four UK operators – Vodafone, Orange, Cellnet and One-2-One – has been equally dramatic. Some 23 per cent of all standard mobile users are now pre-paid. At One-2-One, the mobile subsidiary of Cable and Wireless and Media One, the proportion of pre-paid users has reached 34 per cent.

In their post-Christmas trading statements, all four *operators underlined the* importance of pre-paid. *Vodafone, for example,* added almost 1m subscribers *in the December quarter,* with 600,000 in December alone. In the equivalent 1997 quarter, the total of new subscribers for all four opera*tors was just 750,000.*

Chris Gent, Vodafone chief *executive, said of the latest* trading figures: "The aston*ishing success of pre-paid* services around the world has rapidly accelerated the growth in mobile phone markets and greatly assisted us in achieving a record year for customer growth."

Continental Research says that pre-paid phones accounted for three-quarters of all mobile phone connections in the three months to the end of December.

In another important development, the consultancy says that the supermarkets have emerged to challenge the dominance of Dixons' Link chain in the retailing space. While the Link has a 15 per cent market share, *Britain's supermarkets, in particular Asda* and Tesco, account for a 14 per cent share of the pre*paid market.*

The operators have played *their part in stimulating the* new market. Cellnet, for *example, caused ructions in* November when it launched its "U" service in conjunction with Asda, retailing at £69.99. This was some £30 cheaper than other pre-paid packages and prompted *other operators to change* their offerings. Indeed such *was the demand in the* Christmas sales period that Asda ran out of Cellnet pre-paid phones.

The U service was aimed at young adults, and Continental notes in its report: "Nearly two-thirds of pre-paid customers are under 35. An estimated one million new subscribers are expected over the next six months."

Another market to benefit from the popularity of pre-paid is Italy. In the past three years, the number of subscribers has jumped from 6.4m to 20.3m, according to figures from Mobile Communications, the Financial Times industry newsletter. This was the fastest increase in Europe and turned Italy into the largest mobile market in the region.

Again, pre-paid is credited with much of the increase, some 40 per cent of Italians *choosing the method*, a portion which analysts expect to continue to rise. And like the UK, pre-paid is particularly popular among the 20- to 35-year-old age bracket.

Analysts believe the trend to see the mobile phone as much as a fashion item as a useful social tool accounts for its popularity among young Italians. Pre-paid phones can be swapped regularly, enabling users to change the style and colour *of their handsets.*

For the handset manufacturers, pre-paid has also been a fillip. Nokia and Ericsson, the region's two biggest mobile phone suppliers, have both credited the pre-paid explosion with underpinning record sales.

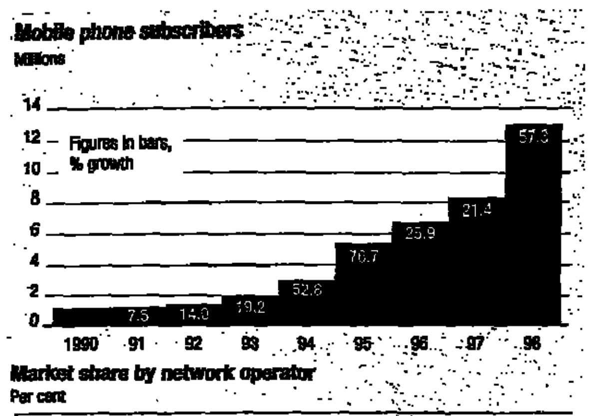
However, while the decline in tariffs has enabled operators to take advantage of the development of pre-paid, new initiatives in the mobile market suggest that fragmentation is likely to occur as more services are added.

For example, Nokia and Ericsson are both members *of Symbian, an industry* joint venture which aims to develop a standard operating system for the next generation of mobile devices. This will see the convergence of GSM with a whole range of different products, from calculators to computers, and will revolutionise how people will communicate.

But such developments will not come cheaply and analysts believe there will be a widening gap between the basic mobile phone user, and the user of added services, such as e-mail, fax and the Internet while on the move.

Pre-paid will continue to flourish, underscored by its convenient price entry-point for consumers, its availability and flexibility. But operators and suppliers are becoming as excited about the next driver for expansion – value-added services such as e-mail and messag*ing services.*

Mobile phone subscribers
Millions



Market share by network operator
Per cent

	Dec 96	Dec 97	Jan 99
Cellnet	39.4	36.2	13.1
Vodafone	41.1	38.0	37.5
Orange	11.5	13.5	16.6
One-2-One	8.0	12.3	14.8

Source: Continental Research

COMPANY IN THE NEWS: OLIVETTI by Paul Betts in Milan

Mobile phone venture was the company's salvation

The key to Olivetti's success was Omnitel – the mobile phone company started under Carlo De Benedetti to challenge Telecom Italia's TIM cellular subsidiary

Olivetti has undergone a metamorphosis. The venerable Italian typewriter and computer company was on the verge of collapse two years ago. It subsequently transformed itself into essentially a telecommunications company. And now, after a remarkable financial recovery, it has launched the boldest *hostile takeover bid in* Italian, indeed European, corporate *history with a* €53bn highly leveraged offer *for Telecom Italia, its much* bigger telecoms rival.

The figures speak for themselves. Barely three years ago, the input of telecoms in the company's revenues was virtually nil. Now its mobile and fixed-line telecoms interests account for as much as 60 per cent of turnover. If its bid for Telecom Italia, the privatised Italian telecoms group five times its size, is successful, Olivetti will become one of the *world's largest telecoms* groups, ranking tenth or *eleventh in the international* league tables.

The *story begins in* September 1996 when Olivetti *was in dire trouble.* Under Carlo De Benedetti, its charismatic chairman and principal shareholder, the Italian company made international waves in its efforts to become a leading operator in the computer business and as a vehicle for Mr De Benedetti's ambitions to expand his corporate empire. If Mr De Benedetti ultimately failed with Olivetti, he left the company with a jewel that has since proved to be the company's salvation and the launch pad for its ambitious attempt to become one of the world's leading telecoms operators.

The jewel was Omnitel – the mobile phone venture started under Mr De Benedetti to challenge Telecom Italia's TIM cellular subsidiary *in the Italian* mobile telephone market *that has developed at a* record-breaking pace. Italy today is Europe's biggest mobile telephone market: one in five Italians now subscribe to a mobile service.

Mr De Benedetti encouraged Roberto Colaninno, head of the Sogefi car components group and part of the De Benedetti industrial empire, to take over as chief *executive of Olivetti.* Mr Colaninno has spent the past two years reshaping and restructuring the company *to return it first to financial* viability and then to position it for growth.

His first move was to shed the company's loss-making personal computer operations and other non-core assets. The strategy was to recentre Olivetti around three core businesses: office equipment, information technology services and telecoms.

However, it was soon clear that the main focus would be telecoms. The information technology business was reorganised and then pooled with Wang Laboratories of the US which took control of these operations with Olivetti taking an 18.5 per cent stake in Wang.

The office equipment business forged a commercial partnership with Xerox of the US. As for the Italian company's telecoms assets, these were married into a *strategic partnership with* Mannesmann of Germany.

Omnitel, the mobile telephone venture, became one of Italy's biggest corporate start-up success stories. Barely five years after its conception, the company is already making strong profits and is continuing to see its number of subscribers rise. Infostrada, the fixed-line venture, was launched on the market last year and is already beating *growth* expectations.

But Olivetti's agreements with Mannesmann meant that ultimately the German company would end up in the driving seat of these tele*coms* operations. That was the price Olivetti paid for *Mannesmann's* financial support at a crucial moment in *the Italian* company's financial recovery strategy.

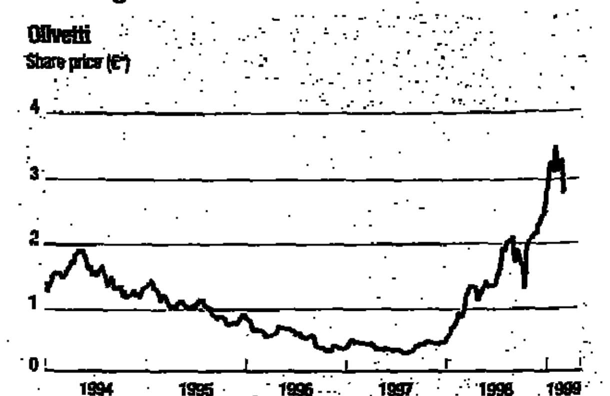
Mr Colaninno was then faced with a choice. Either *continuing* with the Mannesmann partnership or *attempting to* grow even more boldly in the telecoms *business. He* opted for the latter. After assembling a *group* of Italian partners, mainly from the rich northern regions of the country, he launched his audacious and highly-leveraged bid for Telecom Italia.

"It was a unique opportunity and one worth taking," he said soon after launching the bid at the end of February. "We wanted to grow in telecoms and with Telecom Italia we had an opportunity *right in our own back yard.*" Mr Colaninno is now attempting *to woo Telecom* Italia shareholders by *suggesting he could apply* the same successful restructuring to the privatised group as he has done at Olivetti.

His bid involves selling Olivetti's existing telecoms interests to Mannesmann to help finance the Telecom Italia acquisition as well as meet anti-trust requirements. Whether he succeeds or not, by launching his bid *he has already* provoked an earthquake in the Italian business establishment. Italy's corporate structure will never be quite the same.

For Mr Colaninno it is a calculated gamble. If he does not pull off the deal, he says he can always fall back on Omnitel and Infostrada. His agreement to sell control of these ventures to the German company hinges on the successful completion of his hostile takeover of Telecom *Italia.* Nonetheless, if he loses the battle, Olivetti's grand ambitions to take on the world of telecoms will be somewhat clipped.

Olivetti
Share price (€*)



Source: Datastream/ICV * Historical data translated into euros using the locked in rates of 31/12/98

Carlo De Benedetti: left the company with a jewel in the form of *Omnitel* AP

A round-up of the telecoms industry: **Joia Shillingford** takes a look at the news, reviews and forthcoming events

NEWS IN BRIEF

Lucent in £17.5m deal with free ISP

Lucent Technologies is to supply The X-Stream Network, a UK-based Internet service provider, with Internet access technology and related services in a contract worth £17.5m.

X-Stream is a free Internet service with about 200,000 subscribers. Its Internet traffic will be carried across a powerful network based on Lucent products including its Cajun Campus line of local-area-network switches, PacketStar IP portfolio and PortMaster remote access devices.

Ericsson solution for VoIP in Spain

Ericsson has signed an $11m agreement with UK-based telecoms operator Interoute to build a voice-over-IP network in Spain to carry both voice and data. This is the largest contract ever signed for voice-over-IP, according to Ericsson.

Home from home

Worried that your fridge isn't cold enough, while you sit at your PC at work? A new industry standard brings closer the day when you can control home appliances over the Net.

The "Open Gateway" specification is the first interface for connecting consumer and small business appliances with Internet services. Backers include Alcatel, Cable and Wireless, Eléctricité de France, Ericsson, IBM, Lucent and Philips.

Telecoms to rise 6.7 per cent

Western Europe's telecommunications and information technology market will grow by 8.2 per cent in 1999 and 7.5 per cent in 2000, down from nearly 9 per cent in 1998, according to the European Information Technology Observatory (EITO). In its annual study, EITO sees the telecoms market expanding 6.7 per cent this year, with the IT market expected to grow 9.7 per cent in 1999 – the highest rate this decade.

EITO says Europe accounts for 30 per cent of the world's IT-telecoms market, which was valued at Ecu1.4bn in 1998.

Next generation networks

A new report, *Next Generation Networks: Integrated IP Architectures*, will be published later this month by telecoms consultancy Analysys.

The report looks at IP products and how feasible it is for different types of operator to make a rapid transition to IP platforms.

THINK TANK: BOOK REVIEW

Shocks and surprises from 'Masters of Wired World'

Companies and countries alike need to understand power better, says Alvin Toffler, one of the contributors. This book would be a good place to start

You've heard of Tom Wolfe's "Masters of the Universe"* ... now a new book by Anne Leer, strategy planner at Oxford University Press, brings us "Masters of the Wired World".

Who are these masters? Everyone from Peter Mandelson, the MP known as the "Prince of Darkness" behind the Labour party's media machine, to Charles Handy, the UK's most respected management writer, film maker David Puttnam, futurist Alvin Toffler and science fiction writer Arthur C Clarke. Each of them has contributed a chapter.

There is also a fair sprinkling of European Commission members including Karel Van Miert, who writes on competition and Martin Bangemann on the global online economy.

For telco managers who can not sleep at night, the ominous-sounding essay on *The twilight of telecommunications: towards the Global Internet Infrastructure*, could confirm their worst fears, courtesy of Denis Gilhooly, senior adviser at the World Bank.

Alvin Toffler in *Shocks, Waves and Power in the Digital Age* is even more scary. He argues that: "A Wired World requires a complete re-think and major re-construction of society from top to bottom."

Mr Toffler believes we are moving to a trisected world with agrarian countries at the bottom, industrial nations in the middle and information-based economies at least temporarily at the top of the power hierarchy.

"This shift," says Mr Toffler "to a trisected global power structure may well be the most destabilising consequence of the Third Wave – the emergence of societies heavily based on digitalisation and networks.

"With industrialisation, we eventually got the nation state in its 'modern' form," says Mr Toffler.

"What is happening now as we move towards a Third Wave global structure is a proliferation of additional significant players ... Nation states are not necessarily going to disappear, but ... their borders are becoming porous.

"Not only does trade flow back and forth across the borders, but money instantaneously flits back and forth electronically.

"Smoke spreads from Indonesia to Malaysia and Singapore, polluting their air.

"Ideas and alien cultures can penetrate across the globe, whether a government wants them to or not."

What will take the place of the nation state? Mr Toffler believes there will be "Deep Coalitions" or multi-faceted alliances in some ways resembling the "hodgepodge of political entities" that existed before the mid-seventeenth century.

For example, he says: "You may have three nations allied with two giant corporations, not to mention Greenpeace and three other civil society entities, backed, say, by the Vatican and so on and so on."

Mr Toffler says: "The Wired World is much more complex than the one we are leaving behind.

"To succeed in this world, companies and countries alike need to understand power better – and the ways that the information revolution is changing it."

This book would be a good place to start.

Masters of the Wired World (419 pages £18.99) is available from Financial Times Pitman Publishing, telephone: +44 (0)171 447 2000 in the UK or +1 703 519 2171 in the US. (ISBN 0 273 63559)

* In *Bonfire of the Vanities*

Alvin Toffler: 'Shocks, waves and power in the digital age'

TELECOMS FUTURES

Talk your way through the World Wide Web

Could the ordinary touch-tone telephone become the everyday Internet access device? Voice-enabled applications could soon be on the way

Just as web browsers are becoming commonplace, they face competition from the human voice. US companies Motorola, Lucent and AT&T are backing a standard that will make the resources of the Internet's World Wide Web available over the phone.

Together they have formed the Voice eXtensible Markup Language (VXML) Forum. And 17 other companies from the Internet and communications markets have agreed to support it.

The supporting companies include: 3Com, British Telecommunications, General Magic, Dragon Systems, Hewlett-Packard, IBM, Lernout & Hauspie, Nortel Networks and Philips.

Internet sites will have to be specially adapted to present information in a way that will be clear to a listener rather than a casual Internet surfer. But VXML hopes to standardise the way that this is done.

"Just as standardisation of Hypertext Markup Language (HTML) drove the adoption of traditional Web sites, standardisation of VXML will drive the adoption of voice-enabled applications," says Maria Martinez, vice-president and general manager, Internet and connectivity solutions division at US company Motorola.

For example, a salesperson could dial into a corporate intranet from any phone and use "conversation" to receive current order-status data.

Similarly, users could access Web-based weather or traffic information, banking, transaction services or other electronic commerce applications without touching a keyboard.

"When people can interact with a Web application or an Internet Protocol-based service this way, the ordinary touch-tone phone literally becomes the ubiquitous Internet access device," says Larry Rabiner, vice-president of Research for AT&T Labs.

A markup language is a high-level programming language that simplifies content development. To place an image on a Web page, for example, a programmer writes a simple instruction in HTML asking for a particular image file to be displayed. Alternatively, a developer could use VXML to programme a particular audio prompt to play over the phone.

Next month, an initial VXML specification will be available for consultation and the Forum aims to submit a final specification to the World Wide Web Consortium later this year. The initial specification will be based on technologies developed independently by AT&T, Lucent and Motorola.

According to Dan Furman, president of Lucent Speech Solutions: "VXML will have profound impacts on the way we the use the phone – and perhaps the design of phones themselves – as well as changing the nature and evolution of the Web."

One thing is certain: no-one will put up with hanging on as long for information over the phone, as they currently do when surfing the Net by PC.

Motorola is one of the companies which formed the Voice eXtensible Markup Language (VXML) Forum

BACKCHAT

Indirect access for mobiles 'big step in right direction'

ACC Telecom suggests Oftel's next step should be to reinforce its commitment to opening up the mobile market by implementing new regulations by January 2000

A recent consultation document, *Customer choice: indirect access for mobile networks*, issued by Oftel, the UK telecoms regulator, recommends that mobile phone operators open up their networks to indirect access by independent service providers, thereby promoting customer choice and value for money.

"We believe this statement represents a major step towards open competition in the mobile market," writes Ray Willshire of ACC Telecom, an international business call carrier owned by AT&T. "It could have as great an effect on the mobile industry as the introduction of indirect access services has had on the fixed market. [Indirect access in fixed telephony allows callers to connect to a network other than BT's by dialling a four-digit code.]

"We should see an increase in consumer choice driven by an explosive growth in investment and technological development, which should give UK consumers more choice in services and price than any other country in Europe.

"However, ACC has some concerns about Oftel's approach to the issue of pricing for independent vendors wanting to resell mobile air time. In the fixed market, Oftel requires BT to sell traffic at wholesale prices, enabling a greater number of suppliers to offer indirect services. Yet Oftel does not advocate this pricing policy for the mobile market. Rather, its preferred option is for a 'retail minus' rate.

"It is our belief that this rate will render it almost impossible for independent service providers to realise any margin for reselling mobile minutes. The retail-minus pricing structure will also enable mobile operators to set their own charge rates, a potential disadvantage to the smaller provider.

"Oftel argues that this will prevent a mass of new suppliers from emerging, eager to make a quick buck rather than invest in networks, quality and value-added services. However, ACC's view is that increased choice will depend upon motivated suppliers being able to make a reasonable return on their initial investments. So the potential benefits of Oftel's proposal could be lost.

"In addition, access to wholesale rates in the fixed-line market has not prevented a large number of operators investing in UK infrastructure. ACC alone has invested more than £60m in the UK since 1994.

"The document also suggests that the provision of wholesale airtime should only apply to those operators deemed to have "market power", whereas ACC feels that any regulatory change should apply to all the mobile operators.

"Oftel's document has one further omission – there is no indication of the timing for implementation of the new regulation. But Oftel has said it will monitor the mobile network over the next 12 months and publish a full review in September 2000. ACC is keen for this to happen by January 2000 because it views this as a more realistic timetable for a response, and one which is in the customer's interest. It believes that Oftel's next step should be to reinforce its commitment to opening up the mobile market by putting such a timescale in place.

AGENDA

Dates for your diary

Oftel documents out in March include: the annual edition of Marketing Information; Payphones the Way Forward; BT Standard Services: Determination of Final Charges; Regulation of Premium Services (consultation document).

March 18-19:
GSM Latin America (Buenos Aires), IBC UK Conferences +44 (0)0171 453 5456 or fax +44 (0)171 636 1976.

March 22-23:
SDH in Central and Eastern Europe, Russia and the CIS (Prague), IBC UK Conferences +44 (0)171 453 5456 or fax +44 (0)171 636 1976.

March 22-24:
New Media Shopping and Electronic Services (London), IBC UK Conferences +44 (0)171 453 5456 or fax +44 (0)171 636 1976.
Wireless Local Loop Latin America '99 (Buenos Aires, Argentina), IBC UK Conferences +44 (0)171 453 5456 or fax +44 (0)171 636 1976.

March 23-25:
Intelligent Networks and the Internet (London), Vision in Business +44 (0)171 747 5441 or fax +44 (0)171 839 3777.
Mobile Fixed Substitution (Amsterdam), IBC UK Conferences +44 (0)171 453 5456; fax +44 (0)171 636 1976.

March 24-26:
Frequency Hopping and Re-use in Mobile Networks (Amsterdam), Vision in Business +44 (0)171 747 5441 or fax +44 (0)171 839 3777.

March 30-31:
Global VSAT Summit (London), IBC UK Conferences +44 (0)171 453 5456 or fax +44 (0)171 636 1976.

April 12-14:
Internet and Digital Broadcasting Converged Services (Paris), Vision in Business +44 (0)171 747 5441 or fax +44 (0)171 839 3777.

April 14-16:
Mobile Internet '99 (London), IBC UK Conferences +44 (0)171 453 5456 or fax +44 (0)171 636 1976.

April 15-16:
SIM '99 (London), IBC UK Conferences +44 (0)171 453 5456 or fax +44 (0)171 636 1976.

April 19-20:
European Telecommunications Law: Is it Working (Brussels), IBC UK Conferences +44 (0)171 453 5456 or fax +44 (0)171 636 1976.

April 19-21:
Long Run Incremental Costing (LRIC) and Cost Allocation for Interconnect Pricing (Belgium), Vision in Business +44 (0)171 747 5441 or fax +44 (0)171 839 3777.

April 26-27:
The Internet Architecture and Internet Protocols (London), IBC UK Conferences +44 (0)171 453 5456 or fax +44 (0)171 636 1976.

April 26-28:
Developing Tariff Schemes for ATM Multiservice Networks (London), Vision in Business +44 (0)171 747 5441 or fax +44 (0)171 839 3777.
Transfer Pricing for Telecoms, (Amsterdam), Vision in Business +44 (0)171 747 5441 or fax +44 (0)171 839 3777.

April 26-29:
Interconnection Latin America (Miami), IBC UK Conferences +44 (0)171 453 5456 or fax +44 (0)171 636 1976.

April 27-29:
Mobile Security and Fraud Prevention (London), IBC UK Conferences +44 (0)171 453 5456 or fax +44 (0)171 636 1976.

April 28-29: TETRA (London), IBC UK Conferences +44 (0)171 453 5456 or fax +44 (0)171 636 1976.
Mobiles and the Environment (London), IBC UK Conferences +44 (0)171 453 5456 or fax +44 (0)171 636 1976.
UK Digital TV (London), IBC UK Conferences +44 (0)171 453 5456.

May 4-7:
Global IP Summit (London), Vision in Business +44 (0)171 747 5441 or fax +44 (0)171 839 3777.

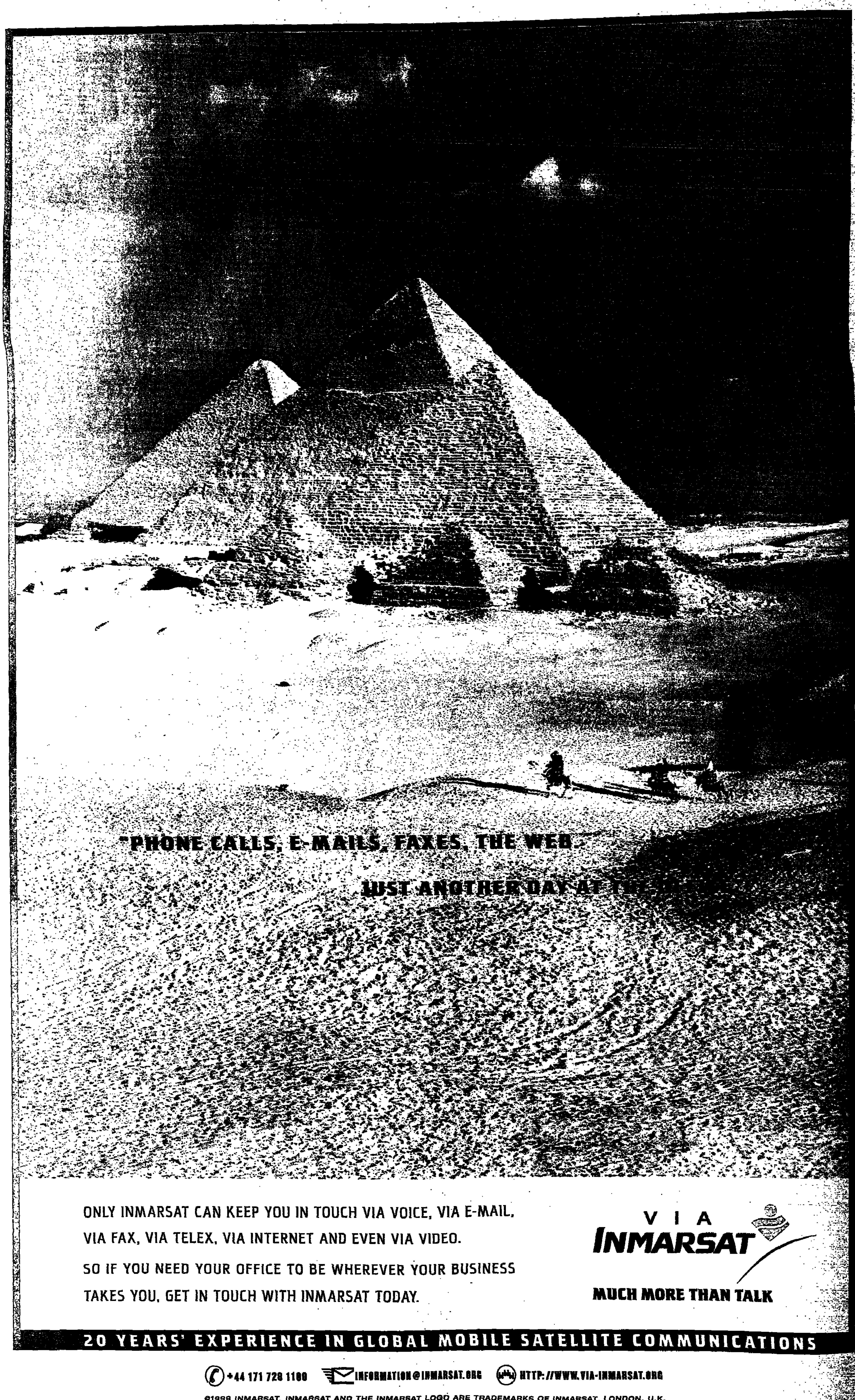
May 17-18:
Telecoms Regulation in Sub-Saharan Africa (Dar Es Salaam, Tanzania), Vision in Business +44 (0)171 747 5441 or fax +44 (0)171 839 3777.
Cyber Call Centres (London), The Yankee Group Europe +44 (0)1923 246511 or fax +44 (0)1923 247566.

May 19-20:
Satellite and Cellular in Sub-Saharan Africa (Dar Es Salaam, Tanzania), Vision in Business +44 (0)171 747 5441 or fax +44 (0)171 839 3777.

May 25-27:
Intelligent Networks in Mobile Systems (London), Vision in Business +44 (0)171 747 5441 or fax +44 (0)171 839 3777.

May 25-28:
The Acceleration of Competition (Frankfurt), Ecta (European Competitive Telecommunications Association +44 (0)118 988 7034 or fax +44 (0)118 988 7035.

May 26-28:
Competitive and Cost Effective Compensation Benefits in Telecoms (London), Vision in Business +44 (0)171 747 5441 or fax +44 (0)171 839 3777.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The relentless pace of change in the global telecommunications business has created, and will continue to create, confusion and uncertainty. The key trends responsible for shaping tomorrow's industry are being to some extent obscured: it is often difficult to see the telecoms wood for mobile phone antennae disguised as trees.

There are, nevertheless, convulsions on a grand scale within the industry. As Denis Gilhooly, a senior adviser to the World Bank noted recently*: "Nowhere is the trauma of adjustment being felt more keenly than within the communications industry itself. After more than a century of stable development, the structure of the telecoms value chain is undergoing total transformation – and it is happening in real time."

Tim Hills and David Cleevely of the Cambridge, UK, consultancy Analysys point out**: "Telecoms is currently unique in the way it combines rapid and huge changes with the extent of their impact through an ever-growing global network of connectivity of people and processes.

"Part of this dynamism has erupted in the immense wave of corporate mergers and restructurings currently engulfing the telecoms industry."

The principal commercial developments driving these profound changes are the demand for ever-increasing bandwidth to support data transmission and the mobile phone business, which has experienced staggering growth across the globe. These are becoming the cornerstones of the new industry.

Dynamic growth shapes industry of tomorrow

Demand for ever-increasing bandwidth to support data transmission and the staggering worldwide growth of mobile phone business are the catalysts for profound changes. **Alan Cane** reports

Among the plethora of multimillion-dollar mergers which have characterised the industry in the past few years, the planned $62bn acquisition of AirTouch of the US by Vodafone, the UK's largest mobile operator, has special significance. It will create the world's first truly global mobile phone company, able to carry calls on its own networks in Europe, Asia and parts of the US.

Its emergence – and the deal is not completed yet – begs the question whether customers will be better served by companies offering only cellular operations or so-called "converged" companies which offer both fixed and mobile services with the economies of scale available from single billing and customer care.

Hugh Small, telecoms specialist with the consultancy A.T. Kearney, raises the interesting idea that mobile networks may be the answer to the problem of the "local loop", the final copper connection between exchange and the home or office that creates a bottleneck in telecoms networks effectively stifling competition.

The marginal cost of carrying additional fixed traffic on a cellular network can be low, Mr Small argues: "A cellular network carrying additional fixed traffic at negligible marginal cost and at prices competitive against the fixed network will always be more successful than a pure mobile network. That is why 'fixed-mobile' convergence will cause mobile networks to replace fixed connections rather than complementing them," he says.

Whether or not Mr Small's idea can help to open up markets where competition is slow to develop, it seems unlikely that other mobile operators can allow Vodafone-AirTouch to rule the international airwaves for long.

Meanwhile, late last year, Iridium, a consortium led by Motorola of the US, launched the first satellite services to hand-held mobile phones, opening the prospect of communication from any point on the world's surface.

There has been intense speculation over the likely market and the number of operators who could profit from such ventures. Competitors waiting in the wings include GlobalStar and ICO who expect to compete their satellite constellations over the next two years.

Important improvements in conventional cellular services coupled with high initial costs have depressed early demand, however, suggesting operators' predictions may have been optimistic.

There has been the beginning of a huge increase in the amount of bandwidth available in the world's networks, driven chiefly by the demands of the Internet. According to Greg Clarke, newly appointed managing director of Cable and Wireless Communications in the UK, the company is supplying business customers today with single lines of greater capacity than its entire network of a few years ago.

The latest transatlantic fibre optic cable, TAT-14, being laid by France Telecom and Deutsche Telekom will have a planned capacity of 640 billion bits of information a second by 2000.

The capacity of all of this newly installed fibre can be increased many times by a new technology, dense wavelength division multiplexing, which enables individual colours of light to carry bit streams of information.

Pioneered by companies including Ciena, a specialist in optical networking, and Lucent, the world's largest telecoms equipment manufacturer, the technology promises to increase the capacity of a fibre optic "pipe" by anything from eight to more than 50 times.

For the most part, however, these pipes will not carry conversations but data. Traditional telecoms equipment manufacturers, with their strengths in analogue voice switching, are increasingly under threat from computer networking companies with experience of data transmission.

This explains the flurry of mergers and alliances with computer networking groups – Northern Telecom, the Canadian group, became Nortel Networks after the assimilation of Bay Networks: Lucent of the US acquired Ascend, another North American manufacturer, in an attempt to become the "undeniable leader" in the market for next generation networks.

The coldest winds have been felt by the operators, however. Tim Hills and David Cleevely in their study argue that all suppliers of telecoms services are: "participating in a globalised, highly competitive and highly dynamic environment".

They identify four stages on the route to a new industry structure:

- First, a period of expansion during which new participants enter the market as a result of liberalisation while incumbent operators remain essentially independent national organisations. This is clearly the case in, say, Germany and the UK where the former monopolists retain their dominance but face an army of new competitors.
- Second, an agglomeration phase when there is increased emphasis on global considerations and consolidation occurs through alliances, mergers or acquisitions. Examples include the formation of C&WC in the UK from Mercury Communications and three cable television groups, or the merger of Telia of Sweden and Telenor of Norway.
- Third, a period of what Hills and Cleevely call competitive revolution, a period of jostling for position during which many suppliers will be forced to regroup or restructure, and;
- Fourth, the emergence of a new industry structure from the previous complex and confusing period.

Hills and Cleevely foresee the survival of a group of operators including a handful of suppliers capable of transporting telecoms globally at ultra-low costs, a few full-service suppliers operating globally and a number of specialised network suppliers including, for example, mobile phone operators.

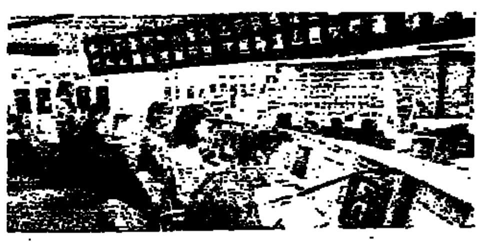
They also predict the emergence and survival of rather larger numbers of niche operators with specialist skills and market access and the ability to tolerate lower margins than the global suppliers.

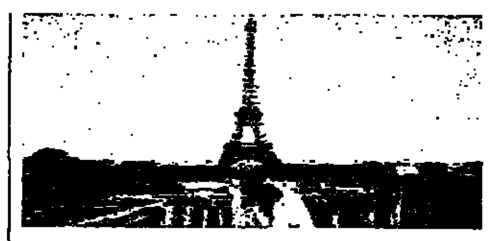
It will mean significant realignments among the combatants on the global battlefield.

And, as the the recent takeover battle for Telecom Italia, Europe's sixth-largest operator, that even the largest are vulnerable and none can afford to rest on its laurels.

* *Masters of the Wired World*, edited by Anne Leer, FT Pitman Publishing.

** *Global Turf Wars*, Tim Hills and David Cleevely, Analysys Publications, Suite 2, Quayside, Cambridge CB5 8AB, UK.





ALAN CANE
VIEWPOINT

Even new operators can be caught out by the speed of technological progress

PA Consulting suggests in a *recent study that Internet* Protocol (IP), the interconnection rules underlying the public Internet, represents a threat to the long-term growth of today's leading telecommunications companies.

Its argument is that IP seems certain to be the technology of choice for tomorrow's high capacity communications networks. New operators, it says, taking advantage of the opportunities afforded by market liberalisation, are betting heavily that this will be the case.

"Incumbent telecoms operators, burdened with legacy infrastructure, have *been slow to embrace IP fully,"* it goes on, concluding: "Every aspect of the telecoms operators' business is under fire".

In business voice telephony, it notes, IP continues to make in-roads while conventional data services such as frame relay and asynchronous transfer mode (ATM) will face increasing pressure from IP. Even Yellow Pages is under threat: "This franchise used *not to face any serious* competition. Today, the entire Web is one big Yellow Pages. The quality of on-line local search and access to them continues to broaden".

These are not new observations, but they provide a basis and explanation for the new willingness of former monopoly operators to move into IP. AT&T of the US and British Telecommunications, for example, are collaborating to build a global, IP-based, data network which they intend to open to other operators. Deutsche Telekom and France Telecom have similar plans. Cisco Systems, the *US-based world leader in* the manufacture of the data communications equipment that underpins IP, is building a national IP network for Telia, the Swedish national operator, a move which marks the first move into national-scale network project management for the US company.

Just as significant, the deal is structured as a sale-and-leaseback arrangement which will help Telia to finance its move into tomorrow's networking world while – and crucially – freeing it from the need to make increasingly difficult technological choices as the network develops.

What is becoming rapidly *apparent, however, is that* even sophisticated new operators are being caught by the speed of technological progress. Consider, for example, Colt Telecoms, a UK-based operator established in 1992 which provides services to governmental and corporate customers in Europe's leading business centres.

It has been building fibre optic rings around these centres, enabling it to *connect directly to its* customers and avoid the cost and inconvenience of connecting through BT's local loop. Its stratospherically high share price reflects the value the market attaches to this capability. It is also an extremely well-run company. The advanced technology in its networks gives it a powerful cost advantage over traditional operators.

Last month, however, it *made an unexpected call for* £500m in new capital to fund, among other activities, the development of IP technology connections between its metropolitan networks – what some call *the "egg and string"* approach. The logic is that ownership of the networking assets confers benefits of low cost and quality control denied those who merely lease infrastructure.

But even in the few short years in which Colt has been operating, the market fundamentals have changed. Newer entrants with even newer technology than Colt are threatening to undermine its business model. Among these are GTS, the US group which owns Hermes, the pan-European carriers' carrier, and Level 3, a new US carrier.

According to Paul Sharma and Chris Godsmark, telecoms analysts at brokers *Henderson Crosthwaite,* Level 3 should prove a formidable competitor for Colt. They point out that it is designing its network to be purely IP-based. It will have an aggressive pricing policy, intending to reduce prices of leased circuits by 50 per cent or more.

Its approach to technology bears careful analysis, however. It intends to replace the electronics in its network every three years *with a depreciation policy* to match. It expects to replace the fibre in its conduits with new glass every five years.

Level 3 may be the first of the new operators fully to leverage the economics of the new telecoms.

The lessons are clear. If an astute operator such as Colt can be overtaken by events, so can anyone. The strategy must therefore be technologically to renew the company every three to five years along the Level 3 model or leave the risk-taking to a third party – as Telia seems to be doing in its ground-breaking venture with Cisco.

ON THE LINE: Chris Gent, chief executive of Vodafone by Alan Cane

Two weeks that shook the sector

The man behind the Vodafone-AirTouch deal explains why the merger is so significant for the telecoms sector – and outlines some of the opportunities for revenue growth

Chris Gent (right) with Sam Ginn at the Vodafone-AirTouch merger announcement in London AP

For the first few weeks of this year, Chris Gent, the *unassuming chief executive* of Vodafone, the UK's largest cellular phone group, enjoyed more media exposure than at any time in a career spanning more than three decades.

The reason was, as anybody with an interest in telecommunications now knows, Vodafone's buccaneering and ultimately successful $62bn bid for the hand of AirTouch, a leading US cellular operator.

In the process, it saw off Bell Atlantic, a large US regional phone company which had set the takeover ball rolling with a bid of $45bn, hoping, it seems, to create a pan-American fixed and mobile telephone company.

Vodafone's successful bid was significant for two reasons. First, because from it will emerge the first independent mobile phone group with global reach. "No other *pure play in cellular telephony* will come close to us" Mr Gent claimed, speaking to the Financial Times the day after Vodafone's bid was accepted. "It could be quite difficult to create a comparable group," he said, going on to point out that competition would nevertheless be formidable.

"It is up to us to make something out of this combination which will give us a market advantage, but there *is no reason why, for example.* Deutsche Telekom and France Telecom, which have been working increasingly closer together, should not form a formidable competitor."

Telecom Italia Mobile, Europe's largest cellular operator with 14.4m subscribers at the beginning of the year, is another competitor Mr Gent takes seriously.

But he is not impressed by those who see the convergence of fixed and mobile operations as the key to the future. He sees it more as flavour of the month: "Most of the talk about fixed-mobile convergence comes from fixed-wire operators trying to defend their patch," he sniffs.

Mr Gent's view stems from a belief in the importance of the mobile phone as the ideal medium for person-to-person contact. He is convinced that mobile phones *will substitute for the fixed* variety within a few years, estimating penetration levels (number of phones per head of population) at between 60 per cent and 70 per cent in the developed world by the early years of the next millennium.

A combined Vodafone and AirTouch would, moreover, have substantial market power affecting every aspect of the business from the basic technology to equip*ment costs.* Mr Gent's own estimates suggest that the combined operation should save some £200m a year through economies of scale in purchasing.

He attaches more importance, however, to what he describes as the "soft synergies":

"We see additional opportunities for revenue growth out of services provided to corporate customers. Our federation of networks in each country in which we operate should become the preferred option if we can structure tariff plans that are advantageous for our business customers – better roaming charges and that *sort of thing."*

He sees similar benefits accruing to residential customers with the continued trend to staying in touch while holidaying abroad.

An immediate objective will be to influence the choice of technology for the advanced mobile data services – described as "third generation mobile" – which are expected to be launched around 2002. "We will work with AirTouch to develop a roaming capability that really works between the US and Europe."

The second significant point in the AirTouch deal is the light it sheds on the ability of a UK company to act decisively when it matters.

It is now the stuff of corporate legend that Mr Gent was in the Antipodes attending board meetings of Vodafone's Australian and New Zealand subsidiaries and, incidentally, watching a little cricket, when Bell Atlantic made its move.

What has attracted less notice is that Mr Gent was playing his cards virtually blind, without access to AirTouch's books or foreknowl*edge of* Bell Atlantic's bidding strategy:

"We felt vindicated by market reaction to the statement we made saying we were in discussions with AirTouch.

"Our shares went up; Bell Atlantic's went down. But Vodafone and AirTouch are two of the most analysed companies in the business.

"Because we have been listed in the US for the past 10 years, we have been talking to the US investment community for a long time and are well known there."

Mr Gent says Vodafone and AirTouch both felt they were becoming involved in something novel and special. In a way it had to be, to justify writing off about £2.2bn a year in goodwill – the price paid over and above book value – for the next 15-20 years: "It will take three and a bit years to get back to the kind of profits we have been used to," Mr Gent says philosophically.

The write-off is a consequence of current accounting practices; in earlier times, goodwill would have been written off against assets.

Mr Gent says: "We will be measured on our ebitda (earnings before interest, tax, depreciation and amortisation) contribution. It will be the cash flow perfor*mance that will* count. Cash is king and we will be generating cash by the bucketful in this business."

Mr Gent is determined to avoid the pitfall which has trapped many UK businesses with US acquisitions: "I shall have to spent a fair amount of time in the US," he says.

"I envisage being there for at least a week a month for the first couple of years. So many times UK companies have taken on US investments and not given them enough attention."

The price he was prepared *to pay for* AirTouch was set at a level leaving some headroom for further acquisitions in the US and elsewhere. "We like Africa," he says. "It *is exciting. But* on a gross domestic product basis we are already in many of the best places."

The merger has, of course, to be made to work and that means mutual understanding and communication.

Mr Gent gleefully points to the potential for misunderstanding. "What a lot we've accomplished in a fortnight," he told Sam Ginn, AirTouch chief executive, at the conclusion of the deal. "What is a fortnight?" came the puzzled response from an English-speaker who had never heard two weeks so described.

ON THE LINE: Graham Wallace, chief executive of Cable and Wireless by Joia Shillingford

Mr Convergence gets the almost predictable call-up

C&W's new chief believes the most important trend for the company is the Internet in its broadest sense – not just access via the phone or digital TV, but also IP telephony

It is easy to see why Graham Wallace was chosen as chief executive of Cable and Wireless. He has a background in TV, IT and telecoms at a time when convergence is the next big thing, and he loves predicting the future. Not only that, but C&W knows him well.

Mr Wallace joins C&W after a two-year stint as chief executive of Cable & Wireless Communications (C&WC), the company *formed from three cable* TV companies and fixed-line telecoms operator Mercury. He arrives at C&W after the sudden departure last December of American whirlwind Dick Brown, who now runs US computer services company EDS.

Mr Brown will be a hard act to follow because in his brief time at C&W he sharpened up the company, instilling a culture of long hours, rapid deals and weekend *phone calls to staff at home.* So what is the future for C&W with Mr Wallace at the helm? "The most important trend for the company is the Internet in its broadest sense," says Mr Wallace.

By this he means not just *access to the Internet via the* phone or digital TV, but also Internet Protocol telephony – the sending of voice as packets of data. He sees big bandwidth applications such as video-on-demand and the Internet filling the coffers of telecoms operators (telcos) with up-to-date networks.

But surely as network capacity increases, prices will fall? Not necessarily. Mr Wallace says: "It depends on supply and demand and telcos have consistently underestimated demand for data capacity." He points to Metcalfe's law, which says that communication increases exponentially, once a mode of communication reaches *critical mass. In other words,* as more people join the Internet, the average level of use will rise because there are more people to "talk" to. For the biggest telcos, this could be a licence to print money.

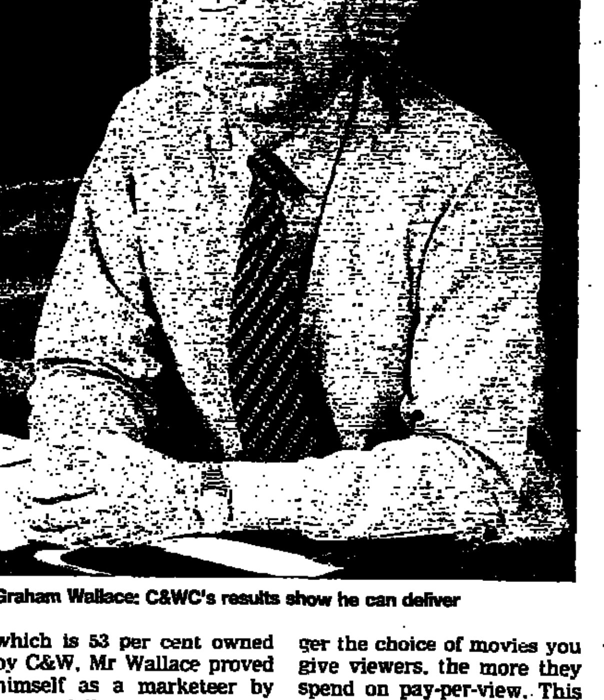
"You've already got your Internet backbone installed and now you can generate even more revenue from it." adds Mr Wallace. This is pertinent for C&W, which bought MCI's Internet backbone network. At C&WC, which is 53 per cent owned by C&W, Mr Wallace proved himself as a marketeer by *successfully selling* a cable TV and a telephone line as a single package called Access. This gives UK users 10 TV channels (including the five terrestrial ones) and a phone line for £9.99 a month – just £1 more than the cost of BT phone line rental.

The package helped C&WC increase cable TV penetration by 0.6 per cent to 26.9 per cent and reduce churn. And it helped the company compete against Sky Digital from BSkyB. BSkyB offers 10 channels for £6.99 on Sky Digital's lowest tariff.

Mr Wallace also helped C&WC gear up for digital TV, which it plans to introduce this spring, and demon*strate in the next month or* so. He expects digital TV to be a moneyspinner for C&WC.

The company's current video-on-demand service, where users can pick from *films shown on Sky Box* Office's four analogue channels, is proving popular. But pay-per-view revenues will increase when C&WC can let customers choose from Sky Digital's Box Office, which has more film channels.

Mr Wallace says: "The bigger the choice of movies you give viewers, the more they spend on pay-per-view. This theory has been proved at BSkyB, which has seen pay-per-view revenues rise since it introduced Sky Digital."



Graham Wallace: C&WC's results show he can deliver

C&WC's digital TV service will be expanded to a full interactive television service by the end of the year, according to Mr Wallace. Its NCI-made set-top boxes have built-in cable modems so customers will eventually be able to surf the Internet at high speed. Better still, for the technically literate, users will be able to plug a personal computer into the set-top box and use that to surf the Net – at the same time as they watch TV if they want to.

C&WC's results show that Mr Wallace, an engineering graduate of London University's Imperial College, can deliver. During his time at C&WC, the company's market capitalisation more than doubled to more than £10bn. By contrast, C&W is a £7.9bn turnover company with a market capitalisation of £19bn. It will prove a bigger challenge because the company may become isolated or a takeover target without a strong international alliance, or even a merger.

C&W *might be able to* bring its Chinese exposure to a potential alliance, at the same time filling in some gaps in its international coverage. Mr Wallace is too new to the job, however, to say what changes he will make. His current plan is to continue Dick Brown's strategy of divesting stakes in companies where C&W does not have a majority stake or strong influence.

A former Granada board director, Mr Wallace helped negotiate the British Satellite Broadcasting-Sky merger, sitting on the Sky board for a while to oversee the integration of the two companies. He was also at Granada during the buy-out of London Weekend Television (LWT) and in his 10 years there carried out a number of roles including finance director and manager of the company's national and international *TV rental business.*

Despite his background, Mr Wallace does not see a role for telcos such as C&W-C&WC in producing their own content. "We're in the distribution business," he says. "We might see some opportunities for local content, but we certainly wouldn't be interested in buying a Hollywood Studio."

Likely next moves for C&WC might be buying a stake in cable TV company *Telewest if AT&T decides to* sell its 21.6 per cent holding (to help get approval for its tie-up with BT). Or it might buy additional cable franchises such as Westminster Cable. Mr Wallace's attitude at C&WC was that "we're always interested in making acquisitions at the right price; that will increase shareholder value."

Meanwhile, wider convergence continues apace. Microsoft has just taken a stake in NTL, the other leading UK cable operator, perhaps with the intention of using it as a testbed for interactive digital applications. And this could indicate that some more convergence between telecoms, cable TV and other industries is on the way.

Mr Wallace, who seems to have risen through energy and ability rather than the old school tie, should be just *the man to make convergence* work for C&W.

OVERVIEW by Joia Shillingford

This is Convergence – but not as originally envisaged

Various trends have slowed progress towards the original vision of converged industries – that is, Large C convergence. But so-called Small c convergence is all around us

Since the early 1990s, the traditional view of convergence has been that industry lines between computers, communications and content would blur or disappear. Mega-companies would be created that crossed industries. Routine tasks would go online. But is this really happening?

"What we call Large C convergence has not evolved as quickly as, or in the way, originally anticipated," says New York-based Tom Pike, global managing partner for Andersen Consulting's communications-high tech sector. He believes there are several structural barriers to Convergence that were predictable but skipped by the pundits:

- Consumer behaviour is hard to change;
- Deregulation is distracting companies;
- Traditional businesses have been doing nicely; and
- Replacing existing technology takes time.

"Consumers consume 3,400 hours of media a year on planes, in cars, at home, and on the way to work," says Mr Pike. "That meets a lot of needs around our lifestyles." For example, most people turn on the TV to "watch the shows they always watch" or to "relax," according to ratings by Arbitron which provides audience ratings for television shows.

Veronis Suhler (a leading media research firm) just this year estimated that only 1.5 per cent of media consumption by 2002 would be online. Mr Pike says: "We need to either add more time to our media consumption – which surveys tell us is not happening – or replace one medium with something else. We have to be careful not to take early adopters and draw linear growth curves.

"Consumers' habits are hard to change and require a real value proposition. When we introduce a new medium like the Internet, it takes us years of trial and error to fully understand it."

It also takes time and money to replace what Mr Pike calls the complex "ecosystem" that has been built over many years. This includes phone lines in homes, on telephone poles, legacy computer systems, and many other items.

Then there is the matter of public policy. Recent and continuing changes such as deregulation, the World Trade Organisation agreements, the Telecom Act of 1996, bandwidth auctions, and digital TV are reshaping traditional competitive environments – requiring executive actions to retain share and cope with new vulnerabilities and opportunities. These changes require big outlays of capital and new programmes just to continue to compete in the traditional industries.

"Consider the case for Broadcast TV," says Mr Pike. "Share is falling, but the number of viewers is growing (due mainly to changing demographics). There are more advertising dollars chasing important time slots [and] the net result is advertising revenue is up and broadcasters had a great year."

Taken together, these trends have slowed the move to the original vision of converged industries – that is, Large C convergence.

On the other hand, convergence also describes a whole variety of technology-driven changes: the movement from analogue to digital networks; the emergence of satellite radio to compete with broadcast; wireless competition with landlines; PCs versus TVs. Andersen Consulting calls this "small c convergence".

"Small c convergence is all around us and changing the competitive landscape," says Mr Pike. "In some segments, this is a big deal. If you are Lucent and Cisco, you are suddenly head-to-head competitors, fighting to sustain growth targets and valuations. Supporting the move to Internet Protocol (IP) networks is a big market opportunity. Responding to small c convergence is crucial for many businesses."

A new digital value chain is emerging where there used to be separate value chains for each industry. This new value chain, and the positioning within it, is very important. "Providers are already staking out their positions," according to Mr Pike. "For example, AT&T has spun off NCR and Lucent to focus on voice and data transmission. They have purchased IBM's data network, and outsourced some information technology (IT) to IBM. They have bought the pipes of Telecommunications Inc., spinning off the content business – Liberty Media.

Various game plans may emerge. One is a scale game. In the (data) transport business, for example, being able to provide high quality bandwidth on demand at a reasonable price will require size.

The other game is the customer and service. "Context" (for example, the software and services that connect end-user and Internet appliance) and appliance providers are well positioned to develop relationships with the customer, potentially locking out companies further up the value chain.

Andersen Consulting's initial research suggests that there are three stages to convergence.

Stage I convergence – The Promise in Andersen's terms – where convergence happens between market segments within a sector such as telecoms (for example, cellular, paging, cable, Internet access, long distance, and local). This type of convergence has developed rapidly and created new competitive entrants to segments, as well as spurring growth across the segments.

NTL launched its TV-Internet service in January, aimed specifically at primary schools and parents

In this stage, companies are still unsure about how the future will evolve. For larger companies, the impact of decisions they take is unlikely to affect near-term revenues. The wrong strategic choices would, however, undermine their ability to stake a claim for a place in the digital future. Stage I convergence includes IP voice, fixed-mobile, Internet devices and network PCs.

Stage II convergence, or *The Clash of the Titans*, occurs when the structural barriers between industry sectors start to disappear. For example, convergence between the computing and communications sectors might involve an application where both the processing power and software resident in a device is dependent upon the network architecture for interactivity and transport.

An example would be the widespread use of Java-enabled third-generation mobile handsets which draw content and interactivity from the Internet, for which there are now trials around the world.

"This stage marks the much-heralded clash between industry giants for positioning within the value chain," says Mr Pike. "Consumers start to benefit as competition reduces prices and new services create more efficient and pleasurable use of time. New services could include a single global phone number, or one monthly financial statement available on the Internet showing all credits and debits, hence, no more bills."

During Stage 1 convergence, investors get rich by investing in companies with apparent growth potential. By stage II, financial markets stop rewarding organisations based on their promises, but instead demand results.

Stage III convergence, *eUtopia*, involves the development of applications that require key success factors from communications, content and computing. At this stage, traditional industry definitions are no longer appropriate. Vertical integration takes place either through acquisition or by developing virtual networks of companies. Few examples of true Stage III convergence have emerged thus far.

But when they do, who will be the winners and losers? In the long term, large incumbents must demonstrate their ability to compete with fast-moving new entrants, and new entrants must rapidly gain scale to be competitive in the long term.

Customer intimacy and/or scale will be a prerequisite for commercial success. Current merger and acquisition models will come under pressure in the search for increased and demonstrable value. Success depends on the mastery of these and other capabilities.

"Convergence has been discussed now for several years," says Mr Pike. "It is happening, but not exactly as expected. In the short term, it is about low-level integration of technologies or the migration to new ones. In the long term, a new value chain is emerging and companies that want to last must carve out a place within it."

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INTERNET SERVICE PROVIDERS by Christopher Price

Free links force a re-think among fee-based ISPs

Telecoms groups have their eyes on electronic commerce and advertising revenues, but first they must overcome some challenges

The stock price of British Telecommunications soared last month when Britain's biggest telecoms group turned in its third-quarter results.

Yet it was not the better-than-expected figures that impressed investors. Rather it was the rapid growth of its Internet revenues which won applause. At a stroke it seemed, BT, once perceived as a monolith in the fast-growing telecoms market, had won its Internet spurs.

The episode was proof, should any telecoms executive need convincing, of the influence of the Internet on investors. It was also evidence of the rapid rise of the UK Internet market – and BT's part in it.

While rising Internet traffic may be benefiting BT's bottom line, it is the prize of value-added services, such as electronic commerce and advertising revenues, which the company and other telecoms groups are eyeing.

Internet service provision is the most obvious route to this, but the UK ISP market is presenting some difficult challenges to participants.

Last month, BT decided to re-brand its BT Click Internet service as a free ISP. The move was in response to the phenomenal success of the Dixons electrical retail group's Freeserve free Internet service. Freeserve has attracted more than a million users in the five months since its launch.

Its popularity is forcing a rethink among many of the 300 ISPs in the UK, most of which rely on a monthly subscription fee for the bulk of their revenues.

Tesco, for example, has scrapped its £7.99 monthly fee and will offer free Internet access. Virgin Net has done the same with its £11.99 monthly charge. BT Click, which was charging a higher call rate, is lowering charges to local call rates in line with other operators.

Internet Technology Group, the UK's largest independent ISP, has also bowed to the changing market conditions. It intends to launch a free consumer service. "I'm not King Canute," says Laurence Blackall, chairman. "We have to respond to the market." However, many other subscription-based ISPs appear determined to stick to their business models. This relies on the provision of additional services, such as community sites, chat rooms, shopping, news and sport, in order to justify a monthly fee.

Frank Keeling, marketing director of America Online UK, Britain's second-biggest ISP, believes his members will continue to pay for the AoL service. "We offer our subscribers an integrated online solution. We are a premium service aimed at consumers who are not experienced Internet users."

AoL members pay between £4.95 and £16.95 a month. David Farniss, marketing director of Demon, the fourth-largest ISP, agrees with this analysis. "We offer a more comprehensive service than the free ISPs. They have had no impact on our business."

However, most analysts see a less-than-rosy future for the paid-for ISPs. Nick Gibson at Durlacher, the investment bank, says that differentiation will become an increasingly important issue if charges are to be sustained. Already, smaller ISPs are keen to be seen offering web site design services and web hosting facilities. Emphasis is also being put on the business market, where a company's e-mail address and quality of service count for more than in the consumer market. "High-speed access, no engaged tone and other service issues are going to be prominent," says Mr Gibson.

But even in trying to differentiate themselves with more services, independent ISPs face competition with the free services for content.

Freeserve, for example, must deliver sufficient numbers of "eyeballs" to its advertisers and e-commerce sites. To do this, it must make its home page, where all users start their Internet visit, as attractive as possible. It is therefore buying in content to provide the same types of services the established ISPs see as differentiating themselves, such as sports, games and financial services.

John Clare, chief executive of Dixons, believes other ISPs will have to follow Freeserve's lead. "Paid-for ISPs are going to have to remodel their businesses. There may be some niche players who will offer value-added services where a monthly charge might be sustained. But the mass market gateway to the Internet will be free."

Philip Lakelin of Analysis, the Cambridge-based consultancy and the author of a recent report on the ISP market, sees independent ISPs increasingly under pressure from two sides.

"On the network side, incumbent telecoms operators that were initially slow to wake up to the Internet are now competing hard, using their economies of scale to achieve low operational cost and leveraging their brand names to offer access alongside the telecoms services they already supply.

"On the services side, companies such as AoL and Yahoo! are redefining themselves as portals and shifting the main source of revenue generation in the residential sector away from basic access towards content-related services."

The result, according to Mr Lakelin, is that "the independent ISPs may find their position in the value chain rapidly dissolving."

REGULATION by Joia Shillingford

Is it time to consider a more simple structure?

Two into one will go – or will it? Industry experts argue the case for a single regulator – and for opening debate about the future of the regulatory authority

"Telecoms and broadcasting regulation needs to be simplified," according to Richard Lister, a partner at London law firm Berwin Leighton. He says: "At present, there's a problem for people who want to provide content over a variety of different infrastructures, such as fixed, wireless and broadcast networks.

"In the worst case scenario, they could have to apply for 17 licences, which is expensive and time consuming. This could discourage UK companies from developing innovative services, or discourage non-UK companies from investing here."

It could also be a problem for telecoms operators (telcos) wanting to buy up bundles of minutes on different services (fixed and mobile, for example) and re-sell them. One of the difficulties is that it is not always clear which regulator will be responsible for determining a particular issue. So companies trying to do something new do not always know who to lobby.

Mr Lister believes businesses should be able to apply for one general authorisation to provide their service. He does not think it matters whether that authorisation is administered by several different regulatory bodies, so long as the applicant has one person – a sort of account manager – to deal with. This person could then liaise with the different regulatory bodies.

Mr Lister says: "My clients want one licence, one licence fee and one set of rules. The legal framework behind telecoms and broadcasting needs to be overhauled because it is too focused on the system used for transmission when this is becoming increasingly irrelevant. The UK has been a leader in telecoms deregulation and licensing. But it should not be allowed to fall behind."

Phil Kirby, director of public policy at cable TV and telephony company NTL, thinks government should be opening up the debate about regulation now. He says: "It is likely to take around three years to get parliament to change the law. So unless it starts reviewing the issue now, by the time any changes are made, the regulatory regime could already have begun to limit the scope for innovative services."

Nick Insley, a senior manager of Arthur D. Little's Time Practice, (Telecommunications, IT, Media and Electronics), says: "It is becoming increasingly difficult to draw a dividing line between telecommunications and broadcasting. In the US, telecoms and broadcasting already come under a common regulator: the Federal Communications Commission.

"As margins in telecommunications are being reduced through competition," says Mr Insley, "and as the basic transport of bits of information becomes commoditised, operators are looking to add more value to their services by moving into the provision of entertainment and information services."

He points out that telecoms networks, both fixed and mobile, are becoming technically capable of providing broadcast-type services. In particular, the old-fashioned copper wires in most incumbent telecoms operators' networks can now use technologies such as Asymmetric Digital Subscriber Line (ADSL) to carry high-capacity video services. The next generation of mobile telephones will also be able to offer video content.

Phil Kirby: thinks government should be opening up the debate about regulation now

The Internet, too, is helping to blur the boundaries between telecoms and broadcasting as it becomes able to deliver real-time audio and video-on-demand – and as "push" technologies that send content to specific individuals mature.

Mr Insly says: "The development of on-demand services is creating a new category of services that, while they are not specifically broadcast (sent to multiple viewers simultaneously), are very close. So having separate regulators could lead to inconsistencies and inefficiencies in regulation."

David Edmonds, director-general of UK telecoms regulator Oftel, says: "The question of a single regulator is a matter for ministers and government. When Oftel gave its evidence to the House of Commons earlier this year – in its response to the government's Green Paper on convergence last summer, we said that 'arrangements on the ground are working quite effectively'."

Mr Edmonds believes that it is preferable for the group of three – the Independent Television Commission (ITC), the Office of Fair Trading (OFT) and Oftel (the Office of Telecommunications) to work together formally and informally – "rather than to dig in and discuss the issue of a single regulator at a time when technology is changing so fast."

He says: "My priority is regulating telecoms and making sure the telecoms market operates in an effective way. I also have other priorities, for example conditional access to digital television. I have to ensure that [the availability] of set-top boxes [for digital TV] is fair to the consumer. The technology [behind digital TV] to a degree mirrors telephony."

His view is that "you don't necessarily need a single regulator to regulate across boundaries. For example, the group of three meet to review issues like interoperability and the bundling of cable television and telephony."

However, he says: "In our Green Paper response, we did put the case for dividing off economic regulation and content regulation. An economic regulator could do all the things we do – such as using well-judged economic techniques, creating hypotheses and so on – for the converging digital technologies and telephony. Content could be put into another body. There could be two [regulators] or a single body with two departments. But at the end of the day, can someone show me what's currently dropping through the holes?

"Technology is changing so fast, with Sky Digital, OnDigital, free Internet services like Dixon's Freeserve, data overtaking voice, that I'd rather just get on with my job. The UK is a decade ahead of many other countries [on telecoms regulation]; some countries have only just got regulators."

Will there ever be a single regulator for UK telecoms and broadcasting? "If there is, I suspect that we're looking at several years off," says Mr Edmonds. "Ministers will have to take a view at some stage. The last Secretary of State saw the UK becoming the 'digital laboratory of Europe'."

DIGITAL BROADCASTING by Susanna Voyle

Christmas sales will put industry in picture

The year is a key period and Christmas is seen as a 'crunch time' because it will indicate demand for digital TV services

The development of digital television represents the broadcasting industry's response to convergence between television, the personal computer and telecommunications. But digital television is one of the key themes for the telecoms sector.

Digital television is simply an improved method of transmitting television pictures. Picture quality is improved with clearer reception, wider pictures and CD-quality sound. And because digital signals – unlike the old analogue waves – can be compressed, a number of channels can be broadcast in the spectrum used by one analogue channel.

While most telecoms operators have been dipping their toes in the digital water to a greater or lesser extent, this year is seen by many as a key period.

The first digital TV service in the UK was launched by BSkyB on satellite in October last year. The On-digital terrestrial service, a joint venture between broadcasters Carlton and Granada, became available in November. But by the end of this year, digital TV on cable is expected – and the Christmas sales period is widely regarded as a crunch time because it will provide a good picture of consumer demand for digital TV services.

According to estimates from Forrester Research, the US-based IT consultancy, more than half the homes in the UK, France and Sweden will go digital by 2005 – and analogue transmissions will be turned off in 15-20 years. The potential market is huge. The group estimates that 94 per cent of households in continental Europe have television sets – and many homes have two.

Forrester says Europe has made an early start, thanks to innovative operators, common standards and government support.

The involvement of telecoms companies differs. Some, such as Nokia and Motorola, have become involved in the manufacture of set-top boxes which supply digital television without the need to change the set and extend the possibility of Internet access through television sets.

Forrester estimates that digital set-top box production is set to grow at a compound annual growth rate of 40.8 per cent between 1997 and 2002 and expects them to be the dominant method for receiving digital broadcasts over the next five years.

Set-top boxes give low-cost access while digital television sets are likely to remain considerably more expensive than current analogue sets for some time to come.

Nokia has linked up with German digital channel Premier for which it is the sole supplier. Meanwhile Motorola has produced a "one for all" set-top box which it claims gets around the problem of restricted consumer choice. Most boxes give access to either satellite, terrestrial or cable services so viewers wanting to gain access to all three would need all three boxes. The Motorola "Streamaster" allows all three technologies plus applications such as digital video discs, 3-D games, web access, videoconferencing and interactive television.

However, many industry observers believe that in the long-term cable could be the ultimate beneficiary of digital TV. For consumers, hardware risk through a cable subscription is minimal and combined pay-TV and telephony packages have become increasingly popular over time.

Analysts at investment bank ABN-Amro say that if the cable sector is able to develop an attractive package of products and improve its marketing efforts it will be able to capitalise on these natural advantages. Added to this, the greater bandwidth available makes cable technology superior to other digital mediums for the delivery of interactive services.

However, Forrester points out that cable companies will have to be quick on the uptake or risk losing out. With vertically integrated platform operators such as BSkyB in the UK and Canal-plus in France controlling contents, platforms and customers, pure-play operators and pure-play content providers will be forced to develop new strategies.

Forrester says cable monopolies will come to an end. No regional operators will be safe from digital satellite and digital terrestrial competition. To keep customers they will have to bundle television, telephony and Internet access and it cites UK group Cable and Wireless as one which has successfully followed this model.

In the UK there are currently 12m homes with cable. Cable groups carry pay-TV services on their networks with BSkyB a leading provider. The cable companies are, therefore, both customers of, and competitors to, BSkyB.

UK cable companies have historically viewed pay-TV primarily as a means of driving the growth of telephony subscribers which are far more profitable. In France, it is the opposite way round, with telephony the first use for cable and television sold on the back of it.

Now cable companies are in a position where they can capitalise on their technological edge – something that should offset the competitive disadvantage of being the last into the UK market.

PROFILE
BSKYB

A very clear picture of its role and well-placed to exploit its position

While BSkyB will remain focused on the entertainment sector, it has also begun offering discounted telephone services

Ian West, managing director of Sky Entertainment, has a very clear picture of his organisation's place in the world: "We are not a cable company focused on telephony. We are a TV company focused on entertainment."

The £1.4bn BSkyB, 40 per cent owned by News International, the media group owned by Rupert Murdoch, offers its UK subscribers 175 channels of entertainment, transmitting direct to homes via satellite dishes, cable and digital broadcast.

It claims a presence in 7m households in the British Isles. Mr West puts this figure into an impressive demographic context: "One in three children in the UK live in a Sky home."

With this background, BSkyB is well-placed to exploit its position. But Mr West is surprisingly shy about some of the recent additions to BSkyB's services.

Skydial allows BSkyB subscribers to make discounted phone calls by hitting a four-number prefix. The discounts for a frequent caller can wipe out the cost of renting a phone line, so BSkyB has the sales incentive of offering free line rental to those of its viewers who spend a lot of time on the phone.

BSkyB has an impressive track record in racing ahead of other operators in the deregulated UK TV market. But the move into telephony is described in very frank terms by Mr West. "Other cable companies were approaching our customers to try and win them over. We felt we had to offer something extra."

The convergence of cable and satellite TV with telephony is being driven by very simple market pressures. Mr West admits that Skydial is not being pushed aggressively by his sales representatives. This is partly a reflection of BSkyB's dominant position in the UK payTV market. But the effort involved in diversifying into telecoms was not enormous.

The scale of telecoms reselling businesses in the UK meant that BSkyB had no huge technical challenge to overcome. Indeed the business options presented themselves when BSkyB moved from the original BT-based service to the current arrangement in 1996. "We work with a reseller; it's an obvious set-up," says Mr West.


BSkyB digital suite: 175 channels of entertainment

BSkyB was not in the business of starting out as a telecoms operator. "We weren't going to go around digging up the roads."

BSkyB went to telecoms reseller Broad Systems for its telephone capacity. The idea was to keep the company's commercial vision locked firmly onto the main prize, the UK entertainment market. This theory drives BSkyB's attitude towards the convergence of different media.

"We have a very different view from other cable companies on the issue of convergence," says Mr West. "The PC and the TV set will not merge, not for a very long time. In the eyes of most people we are in a separate market from telecoms and IT companies and that separate market is called entertainment."

For Mr West and BSkyB, Skydial is a way to exploit telecoms to leverage the profile of a successful product. But it does not open the door to a variety of non-entertainment services. And the much-heralded next step in the marriage of the Internet and consumer electronics, the merged PC and TV set, is a non-starter.

"Internet companies such as AoL can't add anything to the TV and people don't want to watch a movie on their PC."

BSkyB does have a very open mind to the commercial potential of new services that will emerge out of telecoms, IT and consumer electronics. But it intends to approach these services in a very disciplined way. It has invested in a collaborative venture called Open, a joint project with BT, Panasonic and HSBC bank. "The idea," Mr West explains, "is to deliver interactive services to the TV as a part of BSkyB's digital services." Home shopping means that HSBC has a part in managing transactions. BT has a 32.5 per cent stake in Open as has BSkyB.

Mr West thinks the existing BSkyB infrastructure can be exploited to offer new services via a TV remote control. One thing is very clear. "It will not look like the Internet on the TV." Once again, Mr West underlines the critical view an entertainment giant takes of Internet optimists: "We don't see a family surfing the Web together."

So BSkyB is working with technical collaborators on a regime that may see the rise of interactive advertising, viewers responding to a TV advert by hitting a button on their remote control to go to the Open option, reading more details of the product and registering their interest with the advertiser.

Where does Skydial fit into this grand plan? "There are opportunities to expand the telephony service but it has to be at the right time," says Mr West. "We can't do everything at once."

For BSkyB, the priority is retaining that entertainment market. A tie-up with the UK's Carphone Warehouse allows BSkyB to market a mobile phone, offering to its customers yet another value-added service that happens to embrace telecoms. But it is not a priority. Mr West notes that new UK mobile telephony licences will become available from the end of this year.

"This offers the prospect of added capacity, the chance to put more megabytes of data onto a mobile phone." In theory, BSkyB could direct its news output at the display on mobile phones purchased by its subscribers who have chosen a phone supplier via a BSkyB discount scheme. But the way this media giant thinks, that move should be seen purely as an extension of its relationship with customers whose priority is direct-to-home TV and pay-per-view movies.

The single-minded determination of BSkyB marks a practical and hard-headed business case against the proponents of a mass market of merged telecoms and entertainment products. Mr West's opinion is likely to be repeated as more telephony suppliers move into new markets only to find their scope limited by consumer realities.

Michael Dempsey

AN ALTERNATIVE VIEW by Michael Dempsey

Rift between the vision and the reality

Not all companies are convinced that the timetable for convergence is realistic – let alone the original concept

As the worlds of telecoms and IT move closer together and the lines between telcos (telecoms operators) and computer companies blur, convergence sounds less and less like a buzzword and more and more like an idea whose time has come.

But there is a growing rift between the vision of homes wired to the Internet via telephone keypad controls and the familiar device of a TV screen, and the emerging reality of different technologies co-existing. Some of the companies on the leading edge of this process are redefining convergence to fit their experience of the real market.

OpenTV is a US set-top box software company employing 125 staff worldwide. It provides the computer programmes that sit inside the equipment that UK BSkyB subscribers use to tune in to their subscription channel. When French digital TV broadcast channel Television Par Satellite (TPS) launched an interactive service for its 450,000 subscribers in 1997, TPS used OpenTV to devise the technology that underpins its service.

With a vested interest in expanding these services, OpenTV would seem to be leader in the world of convergence. But Jan Steenkemp, chief executive of OpenTV, has grave doubts about the way convergence has been promoted: "TV is about entertainment. But when people talk about the Internet they talk about information."

For Mr Steenkemp, interactive services of the type his company supports at TPS are used to enhance the familiar experience of watching TV. And it is the familiarity of TV as a medium that guarantees the success of the new wave of interactive services.

Mr Steenkemp agrees that Internet services such as electronic commerce will eventually be delivered via the TV. But he thinks that the timetable for this revolution is wildly optimistic. For the Internet to become truly popular there is still a formidable telecoms infrastructure problem to be overcome.

"When I hook up my PC to the Internet I find the transaction takes time. That is because in most instances you still can't get fibre optic lines. For at least the next five years, people will still be accessing external services via copper wire."

The reality of telecoms infrastructure beneath the city streets lacks glamour, but it strikes at the heart of the argument for any rapid convergence of TV with IT services. Mr Steenkemp believes that the digital TV revolution will outpace attempts to converge different services on one focal point, the TV set.

The technology that OpenTV uses is developing in parallel to the fibre optic backbone that will encourage mass use of electronic commerce. For Mr Steenkemp, convergence is a word that can be applied to his organisation's expansion of TV services. But there are practical limits to what consumers want and can use.

He says: "We don't have an argument with the Internet. It's just that when you speak to a TV audience you communicate in a different way."

The growth in users of interactive and pay per view services is phenomenal. "We have 1.8m set-top boxes out there – we expect to have 5.5m by the end of this year." This rapid expansion will keep TV ahead of rival mediums. "If you have $1m to spend on advertising, where do you place the money? With a TV station or on the Internet? There is no real question: TV will always win the business."

Mr Steenkemp points to the popularity of teletext services in the UK as an example of how the TV set can be used to deliver other services. Holidays are sold via teletext, and this points the way for OpenTV's idea of future interactive commerce.


Jan Steenkemp: grave doubts about the way convergence has been promoted

"A viewer will use the remote control to get information on a football team, see the background on individual team members, then order a team shirt over our interactive service because the team has just scored a goal."

Ben Timmons is director of global market development at the £1.3bn mobile telephones arm of Cable & Wireless. He believes in the convergence of telecoms with other high-tech services, but only for a small proportion of his customers.

"Our fixed and mobile networks can join up, but the question is, what are you giving the customers with this convergence? There is no point hammering together parts of a network. Only 10 – 15 per cent of our customers will need these new services over the next five years, and those services will be delivered to a niche in the marketplace."

Mr Timmons echoes Mr Steenkemp's belief that the TV set and the computer are very different delivery mechanisms.

"There are some consumer goods, such as the TV set and the stereo system, that people like to have in separate places. The PC is one of these things."

C&W is maintaining links with companies such as IBM, Intel, Nokia, Toshiba and Ericsson in the Bluetooth consortium, where research into short-range radio transmissions is aimed at integrating pieces of equipment such as computers, mobile and cordless phone handsets. But for Mr Timmons the key is to produce applications "that are meaningful and saleable."

IMPACT OF IP TELEPHONY by Christopher Price

Upheaval is likely to have a profound effect on sector

All the traditional markets of the telecoms operators will be targeted. But European operators probably have more breathing space than their US counterparts

Last November, British Telecommunications became the first of the big European telecoms groups to reveal that data traffic had overtaken voice on its domestic network.

Others will surely follow suit in the near future, underlining the rapid growth of the Internet, electronic mail and electronic commerce as a means of communications. It is an upheaval which will have a profound impact on the communications industry and poses both threats and opportunities to established telecoms operators.

The threats are many and varied. Data is best transmitted using Internet Protocol packet switching technology. IP networks are faster and cheaper than conventional voice systems, raising the prospect of fresh entrants into the market, and demanding large-scale investments from existing operators if they want to compete effectively.

Moreover, the datacoms market differs markedly from voice, calling for different applications, marketing, and systems as well as technology.

Colin Williams, chief executive of Oklahoma-based Level 3, one of a new breed of long-distance carriers, is one of those challenging for a share of the emerging market. His Nasdaq-quoted group currently has on trial two PSDN-quality voice-over-IP systems in the US. It intends rolling out its first full commercial service this month.

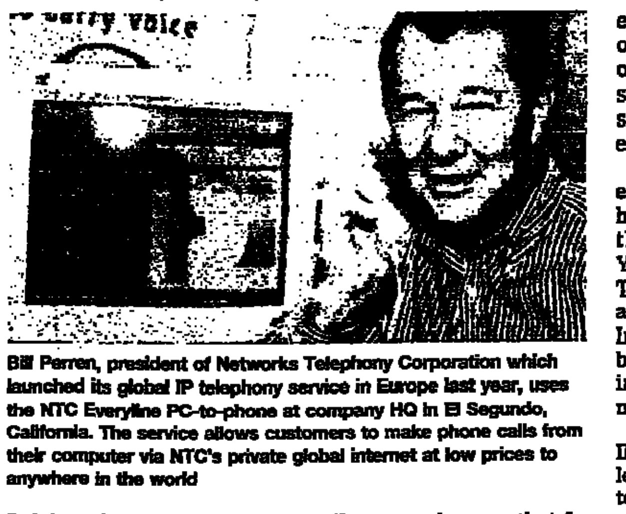
"Voice over IP will be 20 per cent below conventional calls – and get cheaper as our networks build out." He says that companies such as Level 3, which is building long-distance and city-wide networks, will be suppliers of retail and wholesale services. All the traditional markets of the telecoms operators will be targeted.

However, European operators probably have more breathing space than their US counterparts. Mr Williams believes the European market will lag behind the US, mainly due to deregulation happening earlier in the American market.

"Europe has protocol problems, such as different interconnect rates, and standards. But these will all be worked out – it's just a question of time."

He also sees the big telecoms groups suffering in the face of the changing market conditions. "They do not have the incentive in migrating their voice traffic to IP, so they could begin to lose business if they ignore what is happening."

Marie Wold, head of European telecoms and media for Deloitte Consulting, agrees. She says: "IP is faster, cheaper and is going to have a major impact on the telecoms industry. Those telecoms operators that stand still will go backwards – things are moving that quickly."



Bill Perren, president of Networks Telephony Corporation which launched its global IP telephony service in Europe last year, uses the NTC Everyline PC-to-phone at company HQ in El Segundo, California. The service allows customers to make phone calls from their computer via NTC's private global internet at low prices to anywhere in the world

However, she says that for those telecoms groups which recognise the challenge of IP, the opportunities are immense.

"Telecoms groups are not going to be providers of voice services in the future, they are going to be suppliers of information. This opens up a wide array of opportunities for them to strike alliances and partnerships with content providers."

This trend is already in evidence: BT, for example, has struck agreements with the Internet companies Yahoo! and Excite. France Telecom has been on the acquisition trail buying up Internet service providers both at home and abroad to increase its exposure to the new medium.

Robin Crowther, head of IP services at Cable & Wireless, the UK's second-biggest telecoms group, says it has also been pursuing a similar strategy. Acquisition of ISPs has also been conducted while building up a worldwide network of ISPs organically.

This has helped the group to launch IP services, aimed at its large multinational customers. One of these, Web Connect, will allow customers to connect to the Internet in any of the countries they operate via the UK company.

"We see IP as the future for our group and industry," says Mr Crowther. "We see high-quality city-to-city voice over IP service in Europe within the next year."

Thomas Kratzert, a partner with AT Kearney, the management consultants, believes there are a number of key areas in which telecoms operators can succeed in the IP environment:

- Developing content and traffic portals. By leveraging their position of network dominance, big telecoms groups could position themselves as the main gateways to the Internet. They could then use this position to resell goods and services, advertising and cyberlinks.
- Value-added services, such as providing e-commerce solutions, intranets and extranets.
- Hosting services. Mr Kratzert suggests exploiting outsourcing opportunities in the small and medium sized enterprise market, such as server management and application hosting.

The biggest problem that telecoms operators face in targeting these areas, he says, is the competition from specialist companies.

"They will exploit first mover advantages, work in extensive alliances, and continuously innovate and adapt. Each element of the value chain will create its own separate business logic, and will attract specialised players." He adds that service providers and equipment vendors will form close collaborations, such as the alliance struck between Delta 3 and Ericsson.

CASE STUDY
TELENOR

Discovering fresh opportunities and making the most of them

Most traditional telephone companies have been slow to embrace Internet telephony, fearing they might lose traffic from their traditional switched telephone network. But Telenor of Norway has no such fears because it has discovered that Internet telephony opens up new market opportunities.

The general decline in rates for long-distance and international calls in most developed markets over recent years has diminished the original attraction of Internet telephony, namely cheaper phone calls. "The business case for this product was based on offering cheaper calls but the market window is closing pretty fast," says Ivar Plahte, who is in charge of Internet telephony activities at Telenor Nextel, the Internet service provider arm of Telenor.

Nextel has been selling prepaid Internet calling cards since October last year. The cards allow users to place international calls over the Internet from a standard phone with average savings of about 20 per cent – although to some countries the savings reach 70 per cent. Only a few thousand of the cards have been sold, however.

"It's not really a significant number," Mr Plahte admits. The reason lies in the significantly poorer call quality and the annoying delay when a telephone call is handled over the Internet. Unless the cost savings are dramatic, most users seem to prefer the traditional switched telephone network.

Telenor Nextel is Norway's leading Internet provider with a 70 per cent market share of the residential dial-up market and a 50 per cent share of the business market. It operates independently within the Telenor group and Mr Plahte says the parent supported Nextel's moves into Internet telephony despite early fears that it might "cannibalise" Telenor's traditional switched telephony business.

"We have had no political problems," he says. Nextel started its first Internet telephony trial in February 1998 with a "captive" market of students at the University of Oslo who had no cheap method of making long-distance and international calls. The project involved installing software on PCs that allowed the students to make calls over the Internet using a microphone and speaker built into the PC.

The success of this project has convinced Nextel that Internet telephony is best suited to Internet users and last December it launched a full commercial service, called Interfon PC.

When they register for the Interfon PC service, users are allocated a special phone number from the Norwegian Internet telephony number register. The number is personal and follows users between PCs, ensuring mobile users greater flexibility.

Interfon PC can also be used abroad combined with Nextel Globetrotter, a service that gives Telenor Internet access in more than 50 countries. If someone calls the number from a traditional phone, the network knows it is an Internet phone number and converts the incoming call to packets of data that are then sent over the Internet to the computer the user is currently using, wherever they may be.

According to Mr Plahte, one of the advantages of the service is that while users are surfing the Internet at home, the system can divert calls from their home phone number, which will presumably be engaged, to their Internet address. The call can then be handled by the PC.

A message will flash on the screen showing that an Internet call is incoming and this can be answered using the PC's speaker and microphone – or a special headset that Nextel also offers – without the user having to terminate the Internet session.

The service has about 600 customers and the subscription is included free within Nextel's premium Internet access service. Telephone calls made over the Internet are added to the customer's Internet bill.

Users can access Norway's domestic and business phone directories online and make phone calls over the Internet simply by clicking on the appropriate entry, so saving Interfon users with a single phone line the need to end their Internet session and pick up the phone to make the call.

For domestic calls, the costs savings are about 20 to 30 per cent on Telenor's regular call rates. The service is aimed primarily at domestic calls because Nextel is better able to control the quality of the service as traffic is handled entirely on Nextel's Internet Protocol (IP) network.

"The sound quality is reasonable but the delay can be off-putting," admits Mr Plahte.

Nextel's IP telephony network has the capacity to handle 30,000 subscribers or 3,000 simultaneous calls. International calls are routed via Delta Three, the international IP telephony network owned by RSLCom. Delta Three's dedicated IP network lets Nextel broaden coverage to more than 200 destinations worldwide.

Nextel now wants to go beyond voice links and allow PC users to hold videoconferences and exchange multimedia using its IP network. "This is the new market opportunity," says Mr Plahte. "Internet technology is becoming more mature, and we are beginning to see tomorrow's methods of communication."

Geoff Nairn

EQUIPMENT FOR IP TELEPHONY by Geoff Nairn

Vendors aim to combine the best of both worlds

A new generation of equipment will combine the reliability of traditional voice-switching technology with the innovation of packet-switching technologies for IP networks

The telecommunications equipment industry was once neatly divided into two camps, with vendors focused on either voice or data technologies. Not any more. Convergence is breaking down the barriers and the trend is most evident in the burgeoning Internet telephony market.

Traditional voice equipment suppliers, such as Lucent Technologies and Ericsson, compete head-on with data networking leaders, including Cisco and 3Com. In addition, there are the start-up companies, such as Digi International and VocalTec, which pioneered the development of Internet telephony but now risk being overtaken by the bigger suppliers.

All these vendors are working towards the same goal: the development of a new generation of equipment that combines the reliability and robustness of traditional voice-switching equipment with the cost-effectiveness and innovation of packet-switching technologies for Internet Protocol (IP) networks, which include the public Internet and corporate intranets.

Voice equipment vendors face perhaps the greatest challenges. If IP telephony does become a commercial success, their decades of experience in circuit switching equipment may no longer count for much. The big voice equipment vendors are therefore seeking to rapidly grow their IP skills and are scouring the networking industry for suitable acquisitions. Last December, for example, Nokia bought Vienna Systems, a small Canadian company specialising in IP telephony.

"Time to market is crucial to success in this business," says Pekka Ala-Pietilä, Nokia executive vice-president. "Vienna Systems' prominent position in IP telephony provides Nokia with additional technical expertise and access to leading customers in this rapidly developing market."

The mainstream vendors also risk a culture shock when they enter the IP telephony market. Traditionally they have competed for a relatively small customer base of established telephone companies. But in Internet telephony, they suddenly find themselves selling to a bigger, more diffuse marketplace that consists of a great number of smaller customers.

While several of the large traditional phone companies are exploring Internet telephony, the keenest interest comes from the new generation of smaller upstart carriers. For example, Crys-Tel Telecommunications is a new Canadian carrier that plans to use the Internet to provide cheaper international telecommunications services. It recently signed a contract with Nokia to use its IP telephony products – fruit of the Vienna Systems acquisition – to build an international multimedia network which will ultimately connect more than 200 points around the world.

The Nokia IP Telephony platform includes call processing software, back office technologies, gateways to link IP networks to the traditional public switched telephone network (PSTN), together with client applications and IP devices.

Ericsson, a traditional rival to Nokia in the voice equipment market, is also hoping to grow its business in the burgeoning IP telephony sector. It has developed its IP product range internally and its largest customer to date is Delta Three, a fast-growing US company, which claims to have the largest network dedicated to Internet Protocol (IP) telephony.

Working with Delta Three, Ericsson has developed a complete IP telephony system for carriers, comprising gateways, software and advanced network management capabilities. Ericsson is now hoping to sell the system to the new generation of IP carriers as well as established telephone companies.

"Most of the traditional voice carriers are interested in this major shift towards IP," says Erland Lonaeus, Ericsson's managing director for IP telephony. "The whole network environment is becoming more data-oriented but it's not something that is going to happen overnight and there is going to be a coexistence between classical circuit switching and IP telephony."

Ericsson stresses that IP telephony is no longer just a technology for making cheaper long-distance calls. By including IP gateways on their conventional PSTN network, telephone companies can offer a wide range of IP-based services such as faxes, videoconferencing and application sharing between PC users.

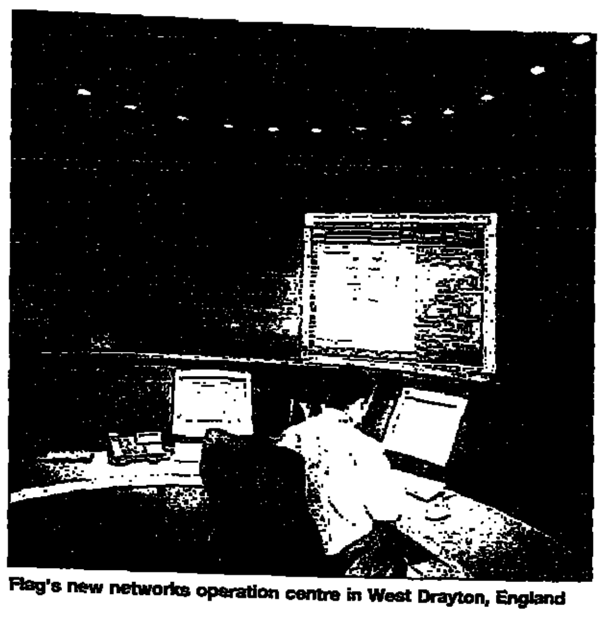
Telenor, Norway's traditional phone company, claims to have been first to build such a network, using Ericsson technology.

The data networking industry is also keen to extend into IP telephony. Cisco, the industry leader, has developed gateways for its routers to handle voice. They connect with existing telephones, fax machines and private exchanges, thus making the process of placing calls over the IP network transparent to users.

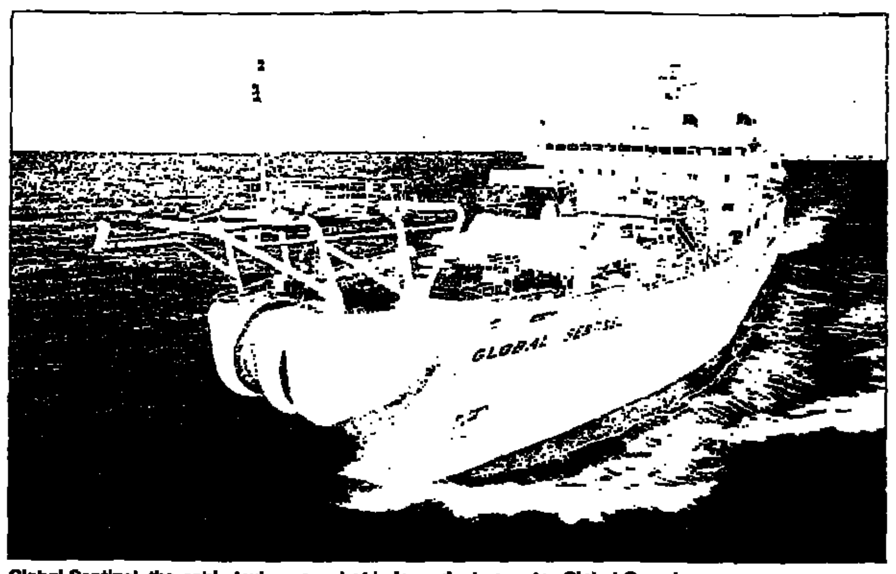
Cisco sees a growth market in Internet service providers (ISPs) offering voice services to their Internet customers. By installing an IP telephony gateway on their premises, business customers could pass their voice traffic directly over the Internet.

Analysts believe IP telephony could find most commercial potential in corporate networks. This is because the quality of the service is easier to control on a corporate intranet than outside on the public Internet. Nevertheless, IP telephony has been slow to develop in enterprise networks.

"Shipments of IP telephony equipment to this sector have been very small to date," says Durlacher, the UK investment house.



Flag's new networks operation centre in West Drayton, England



Global Sentinel, the cable-laying vessel of independent operator Global Crossing

SUBSEA FIBRE OPTIC CABLING by Geoff Nairn

New generation challenges club

Ambitious projects such as Flag are making waves as national markets are liberalised

A storm is sweeping through the once calm world of subsea cable communications. A new generation of privately-financed cables is challenging the cosy club of carriers that traditionally ruled the industry and stimulating competition in international voice and data traffic.

The most ambitious cable project realised to date is Flag, short for "fibre link around the globe", which started service in late 1997. Privately financed to the tune of $1.5bn, Flag stretches for 27,000km from the UK to Japan and has 11 landing points in southern Europe, the Middle East, India and south-east Asia.

"Flag broke the mould of the consortium-based cable industry," says Ian Parker, business development manager at NTL, the UK carrier. NTL recently opened its own independently financed cable, Sirius, to link the UK to Ireland.

Flag links Europe direct to Japan and provide telecoms services to regions poorly served by existing cables, such as China and the Middle East.

More than half the countries where the Flag cable lands have already liberalised, or soon will liberalise, their telecoms markets and this has created a big demand for international telecoms, driven by the emergence of new carriers and strong growth in Internet traffic in many developing regions.

"India has thrown its Internet market open to competition and demand is growing fast," says Andrew Evans, Flag Telecom's vice-president of strategy.

Unlike the traditional consortium-built cables, whose construction could only start when sufficient carriers had agreed to participate, Flag was funded by pre-selling capacity to anyone who wanted it, including Internet service providers, new carriers and traditional telephone companies.

"We were the first company to go out and solicit commitments from customers," says Edward McCormack, chief financial officer at Flag Telecom. The company says it has 80 customers including 20 of the world's top international carriers, such as AT&T, BT and Cable & Wireless.

The Flag project was conceived before the Internet era and so it misses one of the fastest-growing markets: carrying Internet traffic across the Atlantic. To rectify this, Flag Telecom recently announced plans to build a high capacity transatlantic cable in a joint venture with Global Telesystems (GTS), one of the new generation of independent carriers.

The $1bn cable, called Flag Atlantic, will be able to carry voice, data and video traffic at speeds of up to one terabit (1,024 gigabits) a second and should enter service by the end of 2000. The cable system uses dense wave division multiplexing (DWDM) to "piggyback" multiple light beams on each optical fibre and so boost capacity.

GTS aims to become one of the largest cross-border operators in Europe following its merger with Esprit Telecom and already owns an extensive terrestrial network through its Hermes Europe Railtel subsidiary, which has laid optical fibre along Europe's railways.

The goal is to link this terrestrial network direct to Flag Atlantic and so offer customers high-capacity cable access from all big European cities to New York, where Flag Atlantic-1 lands, without having to use the infrastructure of Europe's incumbent carriers.

"New operators in Europe understand that if they cannot get access to international markets on a low cost basis they cannot compete," says Eberhard Plattfaut, Flag's European vice-president.

Global Crossing, another independent operator, opened the first privately-funded transatlantic cable, Atlantic Crossing, in May 1998. It also stresses the benefits of city-to-city access and is now building a terrestrial system to extend the submarine cable to Europe's leading cities. This terrestrial cable, European Crossing, should begin operating before the end of 1999.

"We have to give our customers the most cost-effective solution by offering city-to-city access," says Jack Scanlon, chief executive of Global Crossing.

The company, which is quoted on Nasdaq, has funded its cables through a mixture of equity and debt rather than adopting Flag's approach of pre-selling capacity. Global Crossing has four more cable projects in the pipeline: Mid-Atlantic Crossing, Pan-American Crossing and Pacific Crossing are subsea cables while Global Access Limited is a terrestrial cable linking Japan's biggest cities.

According to Mr Scanlon, all these new cables are funded and Global Crossing has firm commitments from the cable manufacturers and cable-laying ships needed to complete its network by the end of 2000. It will then be 65,000km long and provide access to 100 of the world's largest cities.

By far the most ambitious new cable is Project Oxygen, the brainchild of Neil Tagare, 37, who previously worked on the design of Flag. The cable will stretch 158,000km around the globe and link 78 countries by 2003.

Project Oxygen is designed to satisfy the predicted explosion in Internet traffic worldwide. Using the latest DWDM technology, the minimum capacity of the cable will be 1.28 terabits a second, which is more than the combined bandwidth of all transatlantic cables currently operating, according to Flag. "We will offer true bandwidth on demand on a terabit basis," says Mr Tagare.

Oxygen, with an estimated cost of $10bn, is certainly ambitious but it faces several hurdles. There is no spare capacity on existing cable-laying ships so Mr Tagare plans to build his own fleet of 23 ships. But the biggest challenge is financial. Although he claims $1bn in firm commitments, there is still much fund-raising to be done before Mr Tagare's dream can be realised.

SHAREWARE by Christopher Price

Give-away PCs may herald fresh initiatives

New realities could lead to fundamental alterations in the communications value chain and a new market structure

News that one Californian company is offering a free personal computer to any taker seems to have taken the concept of building business through the free distribution of products to a new extreme.

Yet the business model of Free-pc.com does not differ that markedly from similar offers that have gone before.

The company hands over the computer – a Compaq PC and free Internet access service – for which the recipient must agree to use the machine for a minimum time each month. During use, the customer must put up with advertising which the company decides is most appropriate for the user's profile. By building a big enough market, Free-pc.com believes it will be able to bring in sufficient advertising revenues to recoup the investment in computers.

It is a strategy most famously employed by Netscape, the US Internet group, which began to distribute its browser products free when faced with the threat of Microsoft including its rival browser in its software. It is also a policy employed by many Internet start-ups.

Now, with the telecommunications market facing fundamental change, the prospect of telecoms operators needing to re-examine their business strategies raises the prospect of other "shareware" initiatives.

"Telecoms operators are going to have to address big changes to their markets and moving into areas where they will have to loss-lead to gain market position is an obvious option," says an analyst at one of the leading US investment banks.

One area already seeing this development is the Internet service provider (ISP) market. In the UK, Freeserve, owned by the Dixons electrical retail chain, has taken the market by storm with its subscription-free Internet service.

It has also prompted other ISPs, which rely heavily on a monthly subscription for their revenues, to move to the same model as Freeserve. In as many weeks, three of the leading ISPs have moved from paid-for services to offering a free ISP.

By building market share quickly, Freeserve aims to leverage its position with advertisers, sponsors and electronic commerce vendors. It is a strategy which seems to be bearing fruit: the company revealed last month that it was bringing forward the break-even date for Freeserve from November to April.

Coming months are likely to see the battle for users intensify

However, the dangers in the shareware strategy are rapidly becoming apparent. Freeserve believes it can keep its users – and therefore the "eyeballs" for advertisers – by adding content to its web site in the form of entertainment, information, shopping and news services.

However, with the rest of the ISP market moving towards the Freeserve model, the finite advertising, sponsorship and e-commerce revenues are likely to be squeezed. In addition, the cost of content is likely to be pushed up by the competition.

Freeserve is obviously in the stronger position. But the coming months are likely to see the battle for users intensify markedly against the telecoms operators which covet this particular market space. The winners will undoubtedly be consumers with lower prices, and the losers are likely to be the smaller ISPs.

The attention the telecoms groups are paying to the Internet reflects the importance they attach to the medium in the future of communications.

This is particularly so given the massive growth in data traffic, due mainly to the Internet, and the advent of Internet Protocol networks replacing conventional networks owned by the telecoms operators.

This fundamental change is forcing telecoms operators to look at developing services such as data management, systems operation, electronic commerce facilities and Internet access. Call centres are another example of a new emerging market segment which established operators are well placed to exploit.

"Telecoms operators have so far excelled in the business of reliable voice transport," says Kamel Maamria, consultant with AT Kearney, the management consultancy. "In the future, they will have to play the new game of applications, IP and computers."

He continues: "Traditional players will not be driven out of business as they have the customer base and the financial muscle. However, the new realities will lead to a new alignment of the right competencies, consolidations and fundamental alterations in the communications value chain that will lead to a new market structure that would bear little resemblance with the current market landscape."

These trends are already being seen in the ISP market. Most of the big European telecoms operators have been active in acquiring independent ISPs. "It is a way of getting closer to the customers of the future," says Robin Crowther, head of IP services for Cable & Wireless.

TELECOMS RESELLERS by Michael Dempsey

Fall in computer prices spurs fresh competition

Innovations such as voice over the Internet can help a reseller stay ahead

The liberalisation of European telecoms started in the UK, and that market has proved a boomtown for small and large outfits buying up telephone time from established providers and reselling it on to personal and corporate users at a competitive rate.

The telecoms reselling business appears challenging. Competition is intense, and until very recently the national PTTs called all of the shots. But the plummeting price of computer hardware has allowed medium-sized enterprises to set up signal processing units without suffering prohibitive costs.

The digital switches that dominate hardware spending in the telecoms industry are just computers dedicated to handling phone and data traffic. But as the price of incredibly complex processors has dived over the past decade from millions of dollars to tens of thousands of dollars, enterprising companies have ventured into this market without incurring massive financial risk.

Alpha Telecom is a privately-owned UK-based reseller that started business in November 1996. Stuart Eve, managing director of the £28m company, says he and the fellow founding directors "saw an opportunity to get into an industry that looked very interesting."

The initial outlay for switches, resembling desktop PCs but configured for a very specific telecoms purpose, was about £200,000. "It did cost a lot more than that to get up and running," Mr Eve adds. "You need a lot of software to offer good customer service."

Rapid growth is characteristic of the telecoms sector, but the nature of switching technology is that it can be expanded for as long as the operator is willing to pay for increased capacity. Alpha Telecom was upgrading the


Stuart Eve: 'saw an opportunity to get into an industry that looked very interesting'

first switches within two months of opening for business.

One communications medium causing a great deal of excitement is voice over the Internet. The principle is simple. Messages written on a computer keyboard pass through the Internet charged at the price of a local phone call, so why not extend the benefits to human voice calls?

The quality of these calls is still very mixed, which is why Alpha only offers Internet calls to four areas: Australia, Hong Kong, South Africa and Japan.

Innovation is one way a reseller can stay ahead of the relentless price pressure that characterises retail phone services. Ease of access to rival services keen to undercut one another means that companies such as Alpha have to move fast to exploit every opportunity to differentiate their product.

"Prices are coming down the whole time," says Mr Eve, "Voice over the Internet gives us a temporary price advantage but it might last only six months. The gap between the retail price and the wholesale price for phone time is always getting narrower."

Alpha started off from a comparatively modest base in the UK. Primus Telecoms kicked off in the US in 1994 and is now a global long-distance calls company owning and operating its network and gateways complete with stretches of fibre optic cable.

At one end of the scale, Primus' residential customers can be members of ethnic groups who need an affordable transcontinental connection to family and friends. But it also serves multinationals, integrating voice and data communications for organisations such as Bayer, BMW and Seagram.

John Melick, Primus' vice-president for international business development, is based in Virginia. He claims that the control Primus exercises over the network allows it to offer improved quality over smaller resellers that merely buy and sell airtime.

Given the generally high quality of international voice communications, this is a fairly controversial view. But Mr Melick argues his corner. "If we are sending calls between the US and Australia, we own both ends of the network. So we do have more control over the gateways at either end. Traditionally, this is not the case for companies that rely on larger telcos as partners in the reselling business."

How did Primus make its entry into this crowded market? "It took a lot of money," says Mr Melick. The decision to take the plunge into selling telecoms time was "very daunting."

"What was involved was an understanding of deregulation trends in global networks."

Primus has raised more than $600m to date. The company has yet to return a profit, but is currently turning over $500m and is expected to become profitable in the fourth quarter of 2000, according to Mr Melick.

Messenger Communications Network (MCN) is a Dutch company that resells call minutes, typically allowing advertising campaigns to offer freephone calls to prospective customers. Bob Dombkowski, chief operating officer, says: "We sell by the minute, supporting value-added services such as pre-paid phonecards. Our finished product is wholesale minutes that we can sell to a reseller."

In a world where a profit can be made through the slimmest of margins, MCN represents a new kind of reseller, sitting between telecoms carriers and more recognisable high street phonetime resellers. Mr Dombkowski describes MCN as "small by design", with 19 staff and a turnover of £15m. But like the much larger Primus, it has found software to be a big headache. Call-billing software is notoriously complicated and expensive.

Mr Melick of Primus says 80 per cent of the company's seed capital went into hardware and software, including a transoceanic billing system. Developing its own software is not an easy option but, he says, "there are parts of the system we want to manage ourselves."

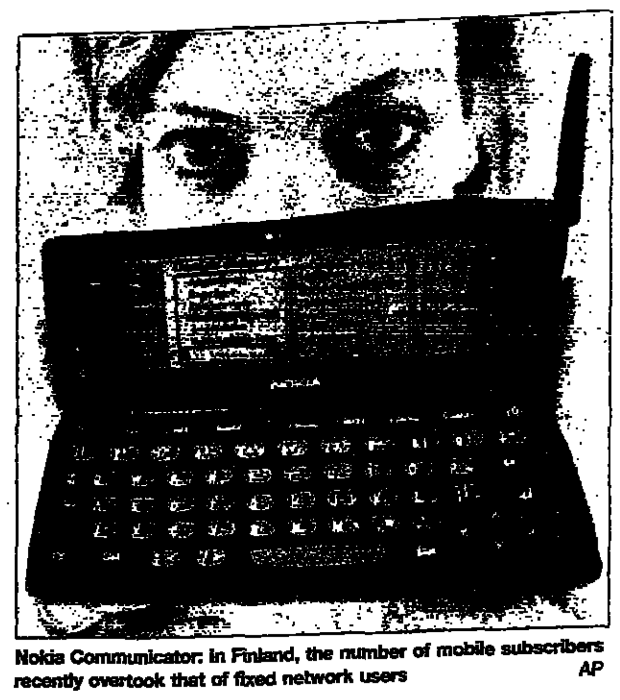
MCN uses a Dutch sister company, Melo Systems, to write most of its programs.

There is a lack of affordable off-the-shelf software products in the reselling arena, and this forces up the entry fee for the new telecoms operators club. Mr Dombkowski is also chairman of the European Competitive Telecoms Association (Ecta).

The number of new entrants into Ecta's area suggests the market may become saturated. But Mr Dombkowski denies there is any danger of this.

"We are barely scratching the surface in terms of what is going to come. Reselling is only 30 per cent of what it will be, if that."


Hans Snook believes that within 10 years 90 per cent of voice and data communications will be on mobile networks


Nokia Communicator: In Finland, the number of mobile subscribers recently overtook that of fixed network users AP

FIXED-MOBILE CONVERGENCE by George Black

Promise of a 'wire-free future' heralds progress

In future, people may have several phones. Fixed networks could be used mainly for video links and entertainment, while voice and data traffic would be on mobile networks

The long-expected convergence of fixed and mobile networks has started to become obvious in the UK with an aggressive marketing campaign by Orange.

Introducing a new "Everyday" tariff of 50 pence a day for 20 minutes of off-peak calls, the network operator is trying to persuade people to replace the use of a fixed network with its own mobile service. It proclaims a vision of a "wire-free future", declaring it is "time to say goodbye to your BT phone".

David Dowe, senior consultant at Analysys, forecasts that substitution of mobile for fixed telecommunications will take place in the next five years on a significant scale.

Charges for mobile calls have been falling rapidly, he notes. The average business subscriber to mobile services in the UK has seen his charges fall by 13 per cent a year for the past eight years.

Although mobile calls are at present still at least twice as expensive on average as fixed network calls, the gap is narrowing and does not need to narrow much more for many people to prefer mobile for sheer convenience.

In Finland, home of the leading handset manufacturer, Nokia, the country where mobile service has been most keenly adopted, the number of mobile subscribers recently overtook that of fixed network users.

In the UK, as in some other developed countries, market penetration of mobile phones is expected to reach 50 per cent in about 2004. Hans Snook, chief executive of Orange, believes that within 10 years 90 per cent of voice and data communications will be on mobile networks.

People will have several phones – fixed and mobile – and the networks will identify which is in current use, he forecasts. Fixed networks will be retained mainly for video links and entertainment, while most voice and data traffic will be on mobile networks.

Next-generation digital mobile communications, superseding GSM (Groupe Speciale Mobile, or international standard mobile) phones, are expected to be almost as robust as fixed lines. General Packet Radio Service (GPRS) technology, by moving GSM from circuit-switching to packet-switching of data, will soon increase network capacity considerably.

In three or four years, wideband mobile networks could deliver data at up to two megabits per second – as fast as ADSL (Asymmetric Digital Subscriber Line) on fixed lines.

But fixed network operators reply that the growing penetration and power of mobile networks does not equate to mass abandonment of fixed lines. They say they will be able to hold on to their traditional business for a long time.

"A combination of fixed and mobile will be cheaper to run for a business than mobile on its own," says Michael Reilly, a general manager at Cellnet, BT's mobile arm.

Convergence of fixed and mobile services not only gives mobile networks the initiative in the marketplace, but also raises users' expectations of more integrated services. What they might like would be one phone service, one phone number reachable anywhere, and one bill for fixed and mobile calls. But these wishes may not come true, at least as far as the mass market is concerned, for several years.

Fixed network operators have high hopes of DECT (digital cordless) phones as a way of extending their networks and overcoming regulations against merging with a mobile operator. Thus they could provide a single service, preventing customers from defecting to mobile systems.

But DECT phones, though they have proved useful in single sites such as supermarkets and factories, do not appear robust enough to cover whole cities and are very expensive to support.

Combined DECT and GSM phones have so far failed to deliver a fully integrated technology. And GSM on its own does not look capable of providing a total service.

It can be supported in specially wired buildings, but there are not enough such buildings to make it ubiquitous.

In remote areas where it does not reach there will still be a need for fixed lines.

Some operators such as Tele Danmark have tried to boost mobile service in place of fixed network service by offering cheap tariffs in the area around the home, but this approach does not seem to have been successful so far, possibly because of varying cell sizes.

A single supplier does not seem likely in the near future, for complex technical, commercial and regulatory reasons. Only one company – the Viag Interkom group, comprising Viag of Germany, the UK's BT and Norway's Telenor – plans to build an integrated fixed-mobile network from scratch. Other operators think they can meet market requirements by extending or upgrading existing networks, either alone or with partners.

Moves towards providing a single supplier have begun with a number of cross-selling alliances. Under such agreements, one partner offers the fixed and the other the mobile element (Scottish Telecom partners with Martin Dawes Communications, Vodafone with Energis and Racal, Orange with NTL and Telewest.)

These alliances have the makings of a single service and single billing system, but for most users that still looks a long way off. Single billing presents big problems for combining vendors which often have incompatible systems.

Given that mobile service operators such as Orange are starting to become more aggressive in their strategy of seeking to replace fixed networks, such partnerships could prove unstable and short-lived.

Number portability is still not generally available between fixed and mobile networks and only to a limited extent between fixed networks. Regulatory changes and commercial developments are needed to achieve full portability, which could take several more years.

Convergence is happening, certainly, but it may not solve many users' problems in the near future.

CASE STUDY
ACC TELECOM

Fixed and mobile deal cuts cost of international calls

Monocon International Refractories, a steel consumables manufacturer based in Doncaster, England, first became a customer of international calls specialist ACC Telecom, owned by AT&T, to make savings on British Telecommunications call rates. So when UK-based ACC introduced discounted mobile phone tariffs earlier this year, it became one of the first mobile customers.

Richard Podmore, Monocon systems manager, says: "We get around a 10 per cent discount on calls to ACC mobiles. Our call volumes with ACC are also twice what they were before we started to use them for mobile telephony. So we qualify for better volume discounts." For example, after 12 months of fixed and mobile use, Monocon will get month 13 free.

"This is worth £2,000 to us because we spend about £1,000 a month on fixed telephony and about £1,000 on mobiles," says Mr Podmore. Although the mobile service is bought from ACC, it is provided by UK cellular operator Cellnet.

"It is much more convenient to get a bill from one telecoms supplier, instead of lots of little bills from three or four telecoms providers," adds Mr Podmore. "The bills are written in a way that is easy to understand. We've opted for a one-page summary, with all the supporting information on a disk.

"Software from ACC enables us to analyse the bill and see where the calls are being made. On the disk, there's an itemised summary of the line or mobile number used, the phone numbers called, and the total cost. We just click on the line number to get a more detailed analysis.

"For example, we could analyse a user's mobile and fixed-line usage at the same time. We could check whether office staff are spending too long talking to colleagues who are on their mobiles. Or we could make sure we're making the most of the discount schemes."

Monocon, which counts British Steel among its customers, exports 60 per cent of the consumables it produces. "We sell all over the world," says Mr Podmore – to the Americas, the Far East, everywhere. ACC gives us an extra discount on the five countries at the top of our list. We spend a lot of time calling the US. But if we spotted from our bill that we were calling Mauritius a lot, we could put Mauritius in our top five too."


One of Monocon's customers is British Steel

Some 60 per cent of Monocon's calls are international and using ACC for fixed and mobile calls has cut its monthly bill by a quarter. Monocon has also spotted from its bill that it is not making much use of two BT fax lines. Mr Podmore plans to get rid of them, saving £70 a month on line rental alone.

The company's calls are mainly to its staff abroad, to its international agents to see how the business is doing, or to liaise with customers of products such as its metallurgical lance, which is like a large straw used to blow oxygen or argon gas into steel.

In the near future, Monocon plans to give users ACC chargecards so that if their mobiles fail, they can make calls from a payphone which will be added to the company's monthly bill. ACC chargecard calls cost more than an ACC mobile but less than a BT Chargecard, according to Mr Podmore.

ACC's network can be accessed by prefixing all phone numbers dialled with the digits '1601'. Monocon's telecoms switch uses least cost routing to do this automatically. However, in its satellite offices in Newcastle and Sheffield, it uses ACCess 100 phones, which are pre-programmed with the four-digit code.

Most business customers qualify for free equipment, such as autodiallers, to be installed by ACC. However, smaller customers will either have to dial the code manually or pay for the equipment needed.

Mr Podmore says he has a dedicated ACC account manager and has never had a problem with the reliability of the network. "The bill once arrived a week late – but I don't think anybody minds about that," he says. "Our products are world class, but every business wants to do that little bit better and keeping costs down helps to achieve that."

Joia Shillingford

FIXED-RADIO ACCESS TECHNOLOGY by Richard Handford

Wireless could be surprise component in the market

Wireless local loop operators might become stars of the European local telecoms market

Using radio links to deliver local traffic to fixed telephones has never really taken off in the UK and other western European countries but 1999 could be the year when it happens.

Fixed-radio access could enjoy a rebirth not as a means of delivering traditional telephone calls but as a way for the neglected residential and small business market to participate in broadband services, such as high-speed Internet access.

Wireless local loop operators (another name for fixed-radio access operators) are likely to see opportunities opening across Europe so that they can steal a march on two groups of competitors in the local market, the incumbent carriers such as BT, Deutsche Telekom and France Telecom, and cable television operators.

Ensuring that ordinary citizens as well as large corporations gain access to the benefit of broadband services is an issue of increasing concern to national governments across Europe as well as the European Commission.

In the UK, the government is set to make proposals for broadband radio services with a consultation document by the Radiocommunications Agency set for publication this month.

The UK government has licensed nine radio operators with a mixed record. The most notorious was Ionica which, despite technical problems that fazed the City of London and sent it tumbling into administration, did succeed in attracting more than 60,000 customers, making it probably the most successful radio-access operator in Europe.

But only now are any of the existing wireless operators looking at offering broadband services.

First was Tele2 which launched last summer in parts of the Thames Valley and now has more than 1,000 users, attracted by services with speeds of up to 384 Kbit/sec – six times faster than the 56 Kbit/sec available to a BT customer who attaches a modem to a normal telephone line, or three times quicker than the 128 Kbit/sec for the more extravagant customer who signs up for an ISDN (integrated services digital network) service.

Tele2, owned by international operator Millicom, aims to cover 60 per cent of the UK population by 2003

This extra transmission speed will make it much faster for a customer to access the Internet.

Tele2, which is owned by international cellular operator Millicom, aims to cover 60 per cent of the UK population by 2003, so it might take a while to arrive on most customers' doorsteps.

The second operator likely to offer such a service is Atlantic Telecom, currently offering wireless telephony services in parts of Scotland, which last month announced plans for a trial in July followed by a commercial launch before the end of the year of a service with planned data speeds of over 3Mbit/sec.

Again, this will be another high-speed competitor to BT.

Wireless operators which enter the market as soon as possible have a window of opportunity before BT realises its plans later this year to offer asymmetric digital subscriber line (ADSL)-based services, which enable normal local lines to behave as if they are digitised and offer speeds up to 2 Mbit/sec.

However, BT is unlikely to make ADSL-based services available commercially until the middle of this year and then probably only in London and possibly Birmingham.

Oftel hopes to see rivals to BT given access to its ADSL network to provide competitive broadband services but any rival is dependent on how BT chooses to roll out its ADSL network. Wireless operators are not limited in this way.

Aside from BT, the other competition for wireless operators comes from cable television operators which currently offer the limited 56 Kbit/sec but will be capable of providing up to 256 Kbit/sec speeds when cable modems are launched in some parts of the UK later this year.

More wireless operators might also see the possibilities of the UK market. At least one leading US operator, Winstar, is following developments in the UK and other European countries.

Winstar offers wireless local loop services in the US where it has revenues of $300m and a market capitalisation on Nasdaq of $2bn.

Through a related company called Landover Wireless, an approach has already been made to the UK government about a licence for high bandwidth services.

There are signs that other west European governments are also looking at radio to deliver competitive broadband services to residential customers.

In France, experimental licences have been issued to companies which have been conducting trials

In France, between 10 and 15 experimental licences have been issued to companies which have been conducting trials in various French cities since November last year.

One of the main points of these trials is to examine how to use broadband over radio waves. These trials will continue until the end of the year after which the Autorite de Regulation des Telecommunications, the country's telecoms regulator, will make a decision about how to proceed.

The German government was due to award a number of broadband wireless local loop licences at the start of this month which will enable the winners to offer services with speeds up to 2 Mbit/sec in competition with incumbent Deutsche Telekom.

This process started last summer when the government split the country into 430 regions and in each established whether radio spectrum was available for wireless services.

By the autumn all these areas had been checked and the government opened a consultation process to which it received a better-then-expected 2,300 responses.

At the start of this month, the government was scheduled to issue licences to those companies which expressed sole interest in a particular region.

In cases where more than one company has expressed interest in a region, the government plans to offer a contest, possibly an auction, to decide who gets the licence.

All these possible openings could make wireless technology the surprise component in the broadband market and its main operators could become the surprise stars of the European local telecoms market.

The author is the deputy editor of FT Telecom Markets.

Graham Duncan, executive chairman of Atlantic Telecom, which plans broadband services trials in July

INTERNET2 by Geoff Nairn

First projects have finally got airborne

There is a growing realisation that the longer-term focus of Internet2 is vital to create the technological foundation for the Internet's development in the next millennium

Once the Internet was of purely academic interest because the network was originally designed to serve US research institutions and universities. Today, however, the Internet has been hijacked by commercial concerns and scientists complain they can no longer use it for research because of the frequent congestion.

The solution is Internet2, a higher-speed version of today's Internet designed to off-load research-oriented traffic from the commercial Internet.

The project was announced by President Clinton in 1996 and was envisaged as a collaborative effort involving more than 130 US research universities working with federal research agencies and private industry to accelerate the next state of Internet development in academia.

The first projects finally got airborne last year thanks to the sponsorship of leading telecommunications and computing companies.

Qwest, the US telecoms group, agreed to supply Internet2 with bandwidth on its nationwide network while Cisco the biggest provider of Internet networking equipment, and Nortel Networks, the Canadian data networking and telecoms group, are contributing network equipment.

The sponsoring companies hope that breakthroughs made in the research laboratories will lead to new technologies that they can then sell as commercial products and services.

"These projects will serve as cornerstones in the effort to make truly advanced Internet applications a reality, said John Patrick, vice-president of Internet technology at IBM, which has committed more than $5.6m to support institutions participating in Internet2.

It is not just the traditional large corporations that are supporting Internet2. Torrent Networking, a start-up company specialised in high-speed gigabit routers, signed up as a corporate sponsor last year.

MCI Worldcom, whose network handles a large proportion of today's Internet traffic, has an obvious interest in improving the Internet. It recently increased the capacity of vBNS, a high-performance network used by Internet2 researchers, to 2.5 gigabits a second on the link between San Francisco and Los Angeles. Launched in 1995, vBNS is a backbone network connecting 81 institutions and four supercomputing centres across the US.

"vBNS supports the exploration of advanced applications by the research and education community, some of which may one day become commonplace on the public Internet," says Vinton Cerf, MCI Worldcom's senior vice-president for Internet technology, who is widely known as the "father of the Internet" for his pioneering research in the 1970s.

The vBNS network is designed to test some of the proposed solutions for improving the Internet and ensure they remain still effective when they are "scaled" up to cope with rapidly growing bandwidth demands.

One of the methods to keep traffic manageable is a concept called Quality of Service (QoS) and this is attracting much interest from Internet2 researchers. "Internet is being used as a test-bed for new technologies such as QoS," says Elwyn Davies, technical strategy manager at Nortel Networks. QoS aims to discriminate between different "classes" of Internet traffic, providing better service for those applications that really need it.

QoS has long been talked about but is difficult to achieve on today's Internet because of the haphazard way it has grown.

There are several competing technologies to implement QoS. One of the earlier suggestions involved a technique called Resource Reservation Protocol (RSVP), in which routers "reserve" a dedicated path across the Internet for traffic that needs higher performance.

RSVP has been found to have a number of problems, however, according to Mr Davies. It requires applications, routers and host computers to all support RSVP and today few do. There is also the problem of scalability. "Running RSVP on today's high-speed links would simply overwhelm the processing capacity of any known router," says Mr Davies.

The Internet Engineering Task Force (IETF) has recently proposed a different way to achieve QoS based on "differentiated services". This involves aggregating Internet traffic into different traffic classes rather than dealing with individual flows.

The class determines the priority given to data on each "hop" between routers across the Internet.

One such class is "expedited delivery" and data given this classification would suffer minimal delay on each router hop. This service could be used by an Internet telephony application, for example, where it is important to minimise the time delay to allow natural conversation.

Another class in the IETF scheme is "assured forwarding" and for this type of data, the delay experienced by each packet of data is less important than the guarantee that the complete stream of data arrives at its destination. This would be relevant to important e-mails or backing up data over the Internet.

Mr Davies participates in the IETF working group designing these differentiated services but he admits they are still some way from commercial application.

"To offer this type of service we are going to need new equipment and service providers must be able to condition and police their networks," he says.

Internet2 has in the past attracted critics who question whether a government-funded research programme is the best forum for addressing issues such as QoS, particularly as recent advances in Internet technologies have overwhelmingly come from the private sector. But there is a growing realisation that the longer-term focus of Internet2 is vital to see beyond the commercial interests of equipment vendors and so create the technological foundation for the Internet's development in the next millennium.

The Internet has been hijacked by commercial concerns: this furniture store in Houston, US, has installed video cameras to enable remote Internet shoppers to pan and zoom in on items AP

NUMBER PORTABILITY by Sarah Parkes

Britain leads the field in getting numbers right

As telecoms markets liberalise, portability has come to be seen as a vital part of a truly open, competitive marketplace. But for operators it can pose problems

Some numbers are more important than others. While mathematicians have always been convinced of the truth of this statement, it is also starting to take on a special significance for Europe's telcos (telecoms operators) and millions of telecoms subscribers who, thanks to new number portability regulations, will soon have the chance to change service provider without the inconvenience of having to change phone numbers.

Non-geographical number portability became a reality for Britain's telecoms users on January 1 this year. Mobile and freephone subscribers now enjoy the same benefits as the UK's fixed-line users, who have been able to take advantage of geographical portability since 1996.

The rest of Europe will soon fall in line: under European Union guidelines, most of the 15 EU member states will offer geographical portability by the year 2000, with mobile and special number portability to follow a couple of years later.

As the world's telecoms markets liberalise, portability has come to be seen as one of the cornerstones of a truly open, competitive marketplace.

For consumers, certainly, the ability to change carriers without the penalty of changing numbers offers enormous potential benefits. The cost of changing phone numbers is estimated at between £1,000 and £100,000 for business users, depending on the size of the operation. Moreover, that figure only reflects the direct expenses associated with call redirection, new stationery and other sundries, not the cost of potential new business lost.

While residential users do not suffer the same financial burden, the ability to retain an existing number avoids a lot of unnecessary time and effort informing friends and family, not to mention the annoyance of missed calls. What is more, if the regulators are right, the ability to shop around for the best tariff and service package should greatly stimulate competition in all segments of Europe's flourishing €200bn telecoms markets.

For the average telecoms user, taking advantage of number portability is as simple as choosing a new network operator and asking for the service, which is free. Numbers are ported transparently, without the need for any changes in dialling procedures, and without any degradation of service or quality.

At the operator's end, of course, it is a bit more complex. Carriers face two choices: port numbers through standard call forwarding software, or implement an Intelligent Network (IN) system. IN is the technology of choice for those who can afford it.

"Call forwarding is a quick and dirty solution which works well enough if traffic levels are low," says Ed Siegle, a senior consultant with specialist telecoms consultancy Schema. "However, once a certain level is reached, IN becomes a much more efficient routing system, resulting in improved network performance and lower costs for the operator."

Through its delivery of number portability solutions to early adopters such as BT and Hong Kong's New World Telephone (NWT), Marconi Communications is one of the few companies which can boast solid experience in *the nascent world of large-scale* number porting. The company installed its GAIN all-call query system at the Hong Kong operator's headquarters in 1997, where it is used to optimise call routing and perform mandatory automatic number updates to the Hong Kong regulator's master number database.

Incumbent carriers regard number portability as one of the many cruel facts of life in today's environment

"In multi-operator environments where there is a lot of porting going on, all-call query systems keep better track of numbers ported between other operators because they check the 'real' number behind every call," says Jon Howes, Marconi's IN product marketing manager.

Ericsson, another leading IN supplier, believes the market for number portability could soon extend into new areas. "What we have right now is portability between operators," says Karl-Erik Kallioniemi, a manager in the company's Standardisation and Regulations division.

"But IN also supports portability between geographical locations, and portability between different telecoms services. It is likely operators will soon begin offering these services too, as a way *of differentiating themselves* and gaining a lead over competitors."

One UK user quick to take advantage of the new ability to port non-geographical numbers is Liverpool-based Freephone Taxis. Founded by brothers Tim and Chris Jordan in 1994, the company has built its business around two "gold" freephone numbers which, even more than the company's name, serve as its "identity" in the minds of customers.

Being able to port freephone numbers meant the company could shop around for the best deal; it now sources its services from Norweb Communications, the Manchester-based subsidiary of United Utilities.

"The advent of number portability gave us the choice to shop around for a more competitive service provider. As a result, we've been able to enhance our complex call-routing plan, improve our statistical analysis of call patterns and make substantial savings on the thousands of calls generated every day," says Tim Jordan, operations manager.

Incumbent carriers generally regard number portability as one of the many cruel facts of life in today's liberalised environment. Not only do portability requirements oblige them to invest in IN systems to handle the complex routing of hundreds of thousands of calls, but most are pessimistic about the effect of the new rules on their bottom line.

"Many of them feel they're basically being asked to spend a lot of money to allow their customers to be taken away," says Marconi's Jon Howes.

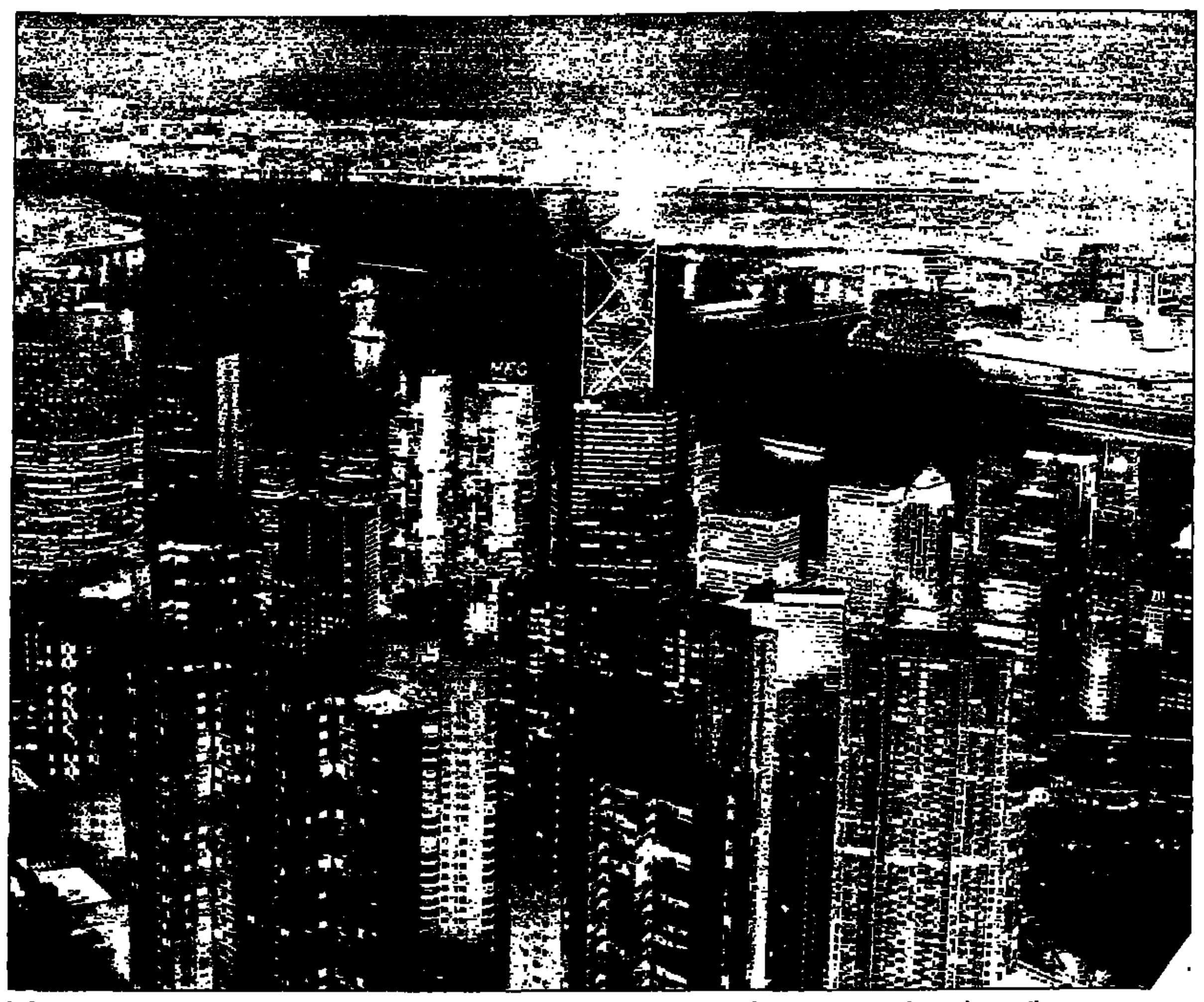
Even for new operators, number portability is something of a double-edged sword. While it gives them a greater chance to woo subscribers away from rivals, they also risk seeing their own customer base plundered by competitors.

This could help explain the low key approach to promoting portability adopted by most of the UK's carriers to date. "Those with the biggest advertising budgets, like BT, Cable & Wireless and Vodafone, also have the most to lose from the widespread uptake of portability by consumers," notes Schema's Ed Siegle. He adds that teething troubles with new systems installed to meet the regulatory deadline of January 1 might also account for the seeming reluctance of the UK's younger mobile operators to promote the new service.

Graham Cove, managing director of Redstone Telecom and chairman of a committee of Oftel, the UK telecoms regulator, charged with examining the commercial issues surrounding the porting of non-geographic numbers, points to another problem:

"While portability of geographic numbers across the PSTN is fairly straightforward, the more cor[illegible] iffing surrounding mobile networks compu[illegible] the issue. For example, at present there's a substantial tariff differential between using your mobile to call someone on the same operator's network and making a call to a rival network.

"But when users can change operators at whim while keeping the same number, how do callers know what they're really being charged? And who picks up any additional cost?"



In Hong Kong, New World Telephone (NWT) gave Marconi Communications solid experience of large-scale number porting

Freephone Taxis, based in Liverpool, England, was quick to take advantage of the new ability to port non-geographical numbers – and shop around for the best telecoms deal

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